

A HISTORICAL GRAMMAR
of the
MAYA LANGUAGE
OF YUCATAN
1557–2000



Victoria R. Bricker

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A Historical Grammar of the Maya Language of Yucatan

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THE UNIVERSITY OF UTAH PRESS
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Preface

Although I was not aware of it at the time, this project had its early beginnings more than 40 years ago, when I spent the summer of 1971 in Yucatan with the goal of collecting oral histories of the Caste War of Yucatan (1847–1853) and its aftermath for a comparative study of revitalization movements in the Maya area. That study culminated in the publication of my second book, *The Indian Christ, the Indian King: The Historical Substrate of Maya Myth and Ritual* ten years later (Bricker 1981). As was customary then, shortly after arriving in Merida, I went to pay my respects to the leading scholar of the region, Don Alfredo Barrera Vásquez, who was then Director of the Instituto Yucateco de Antropología e Historia in the Palacio Cantón on the Paseo Montejo. After I had explained the research that I was hoping to carry out that summer, he told me that the Biblioteca Crescencio Carrillo y Ancona, which at that time was housed in the Palacio Cantón, had about 200 letters from the Caste War, many of them written in Maya, and he asked me whether I would like to include them in my study. Of course, I said “yes.” And that opportunity not only enlarged the scope of the research I carried out during that summer, as well as in subsequent years, but also planted the seeds for the research that is described in this book.

During the 1970s, the purely synchronic focus of the field of social anthropology in which I had been trained was gradually superseded by a more diachronic approach to ethnographic research, in which historical documents were employed for contextualizing the communities that were the object of study in time. Don Alfredo’s timely offer set me firmly on this path and alerted me to the possibility that such documents could be used for contextualizing the language as well as the culture historically. So also did the holdings of such documents in the Latin American Library at Tulane University, where I spent my academic career, especially the Hacienda Tabi papers, the *Crónica de Mani*, and facsimile copies of the Xiu Chronicles and the testaments in the *Libro de Cacalchen* (also known as the *Libro de los Cocomes*).

Another influence on this work was the fact that I had originally been hired at Tulane to teach Anthropology 680 “Spoken Yucatecan Maya,” which I continued to do on a usually biennial schedule until I retired from teaching at the end of 2005. Therefore, although my initial research project after coming to Tulane was in sociocultural anthropology, the language of the people became another priority in my academic life.

By the end of 1978, I had finished the book manuscript whose research had introduced me to Maya historical documents and had submitted it for publication. I was now ready to move in an entirely different direction.

Although I had been teaching Yucatecan Maya for almost a decade with the assistance of Eleuterio Poʔot Yah, a native speaker of the language from the town of Hocaba, and had acquired some mastery over its grammar, I wanted to develop the kind of oral fluency that comes only from living in a community where the language is spoken on a daily basis. My first sabbatical, during the spring semester of 1979, provided me with the opportunity to carry out this goal. I chose for this purpose the town of Ebtun, situated about four kilometers west of Valladolid in the center of the peninsula, because of the existence of a large corpus of Maya documents known as the Titles of Ebtun (Roys 1939), a collection encompassing 125 documents, running from 1600 to 1833. I wanted to document the twentieth-century dialect of this town in order to compare it with what had been recorded in the Colonial documents, as a first step in the task of

identifying the grammatical changes that had taken place over time. In all, I spent three and a half months in Ebtun during that semester, living with a Maya midwife and local health promoter, whose home served as a clinic for pregnant women who were usually accompanied by their husbands. Their conversations, as well as those of other people who dropped by for a visit, were instrumental in my acquisition of fluency in their language.

ACKNOWLEDGMENTS

Several people have had a pivotal role in the design and execution of this study.

The first was Don Alfredo Barrera Vásquez, who, as explained above, called my attention to letters and other documents penned by native speakers of the Maya language, making a historical grammar possible. I am indebted to him for setting me on the path to explore the antecedents of the Modern Yucatecan language.

The second was my first student, Philip C. Thompson, who offered to let me use his microfilms containing 512 Colonial Maya documents from the town of Tekanto in my teaching and research (he was interested in the cultural, not the linguistic, contents of those documents, which left me free to make whatever linguistic use of them I wished). I appreciate his generosity in making this wonderful collection of documents available to me.

The third was Eleuterio Poʔot Yah, originally of Hocaba, Yucatan, who taught me and my students his dialect of the Modern spoken language and who persuaded me to collaborate with him on a dictionary of his language, from which I have drawn many examples for comparison with the grammar of its Colonial predecessor. I am grateful to him for sharing his language with me and for the many hours he devoted to bring the dictionary to fruition.

The fourth was my colleague in the Department of Anthropology at Tulane, Olanike Ola Orie, who guided me in the phonological analysis of Colonial Maya and other grammatical topics covered in this book. I appreciate her willingness to become so involved in a language so far removed, in both space and time, from her own linguistic specialities.

A number of the anthropology graduate students at Tulane made the initial transcriptions of the hundreds of Colonial documents on which this study is based. Craig A. Hanson was the first to help me in this way. He transcribed the Maya documents in the Hacienda Tabi papers in the Latin American Library at Tulane. The many documents from Tekanto were transcribed by a number of graduate student research assistants over the years: James Dugan, Rebecca Hays, Rebecca E. Hill, Katrina Kubicek, Christopher N. Nichols, Masaki Noguchi, Dan Stauber, Christopher von Nagy, and Zonghua Wu. And Timothy W. Knowlton transcribed a set of documents from Ixil. I appreciate their efforts on behalf of this project.

Upon learning of my interest in Maya documents, several colleagues supplied facsimile copies that filled lacunae in my database, including Mark Christensen, Don E. Dumond, William F. Hanks, and Paul Sullivan. So also did former Tulane students, such as Rani Alexander, John Chuchiak, and Stacy Schwartzkopf. I am grateful to them for helping me in this way.

In the Latin American Library at Tulane University, three Directors—Marjorie Le Doux, Guillermo Nañez, and Hortensia Calvo—facilitated my access to the Maya documents in their Special Collections, and the librarians responsible for those collections—David Dressing and Christine Hernandez—supported my research by providing facsimile copies of the documents that were most relevant for my investigations. I am grateful to them for their contribution to the success of my project.

I also appreciate the cooperation I received from Greg Finnegan, the Reference Librarian at the Tozzer Library at Harvard University, where I spent two weeks during the summer of 2004, working with that

Library's copy of the Titles of Ebtun. I am grateful to Tom Reese, Director of Tulane's Center for Latin American Studies, for defraying my transportation expenses in connection with that visit, and to Nan Vogt, for her hospitality during the weeks I spent in the Tozzer Library in Cambridge, Massachusetts.

While I was in graduate school at Harvard, I had learned the value of concordances for organizing numerous texts for analysis. As the number of Maya documents in my database increased, I soon realized that concordances could be equally useful for identifying grammatical patterns in a language, and I enlisted the help of William R. Ringle, then a Tulane graduate student and now Professor of Anthropology at Davidson College, to write a concordancing program for this purpose. His first program was designed for Tulane's DEC mainframe computer. His second, in the SNOBOL language, could run on a desktop computer. The concordances produced by his programs were invaluable for my grammatical research, and I am grateful to Bill for producing such a useful tool for this project.

Some time after I had begun the analysis of my data, I realized that it behooved me to spend some time familiarizing myself with the largest of the sixteenth-century Maya- Spanish dictionaries, the *Calepino de Motul*. Because a dictionary is not the kind of work that one can read from cover to cover, I decided that the best way to ensure that I had read every word in it was to translate all the Maya entries and example sentences into English and to distribute the example sentences under all the head words contained in them. To this end, I asked Adrienne Tremblay to scan all the pages in Ramón Arzápalo Marín's (1995) edition of the *Calepino* with an OCR program. I then replaced all the Spanish glosses on each page with my English translation of the Maya entries and example sentences. This task took me four years, at the end of which I could truthfully say that I had read every word in the dictionary and assigned the example sentences to the main entries contained in them. I appreciate the care with which Adrienne scanned the pages of the *Calepino* and made sure that the special characters in them came through.

When David Bolles learned of the work I was doing with the *Calepino de Motul*, he sent me a copy of his searchable, digital transcription of this dictionary, which he thought would be useful for specifying the pages in the original manuscript from which my example sentences would be drawn. It made the task of proofreading the example sentences against a facsimile copy of the original *Calepino* much easier, and I am grateful to him for anticipating this need.

Over the years, a number of colleagues have provided insights on comparative Mayan grammar, beginning with Thom Smith-Stark in the 1970s and William N. Norman in the early 1980s. More recently, John S. Justeson, Terrence Kaufman, Katherine Langan, Judith Maxwell, and Marc Zender have shared their knowledge of Mayan languages with me, Yoshiho Yasugi enlightened me about the structure of focused constructions in Colonial Maya grammar, and Alfonso Lacadena suggested a better arrangement of the chapters of this book. I appreciate the willingness of all these scholars to respond to my questions and clarify points of grammar with which I was not familiar.

Ema Uhu de Pech, who replaced Eleuterio Poʔot Yah in teaching Spoken Yucatecan Maya at Tulane after his death, patiently responded to questions intended to reveal phonological continuities and changes between her dialect and Colonial Yucatec. I am indebted to her for making it possible for such information to be included in this historical grammar.

Finally, I am grateful to Patrick L. Hadley and Rebecca L. Rauch at the University of Utah Press for their efforts to facilitate the production of this book.

CHAPTER 1

INTRODUCTION

In this work, I present a historical grammar of the Maya language of the Yucatan peninsula, based on an analysis of provenienced documents written in the Latin alphabet. Maya is second only to Nahuatl among Native American languages in the number of written texts that have survived from the Colonial period and later and in the diversity of genres recorded by native scribes in their language.

1. Terminology

“Maya” is the name that the present-day descendants of the original inhabitants of the peninsula use in referring to their language. Some historical linguists (e.g., McQuown 1967) find it useful to distinguish between two varieties of this language, which they call Classical Yucatec and Modern Yucatec. However, as Ortwin Smailus (1989:1) points out, the term “Classical Yucatec” is valid only for the variety of Maya that was spoken before 1545, when the Spanish conquest of the peninsula was completed; by the 1570s, when the first bilingual dictionaries were being compiled, there were already many Spanish loans in Maya. He prefers to refer to the earlier variety as Colonial Yucatec Maya, presumably encompassing the years 1545 to 1821, when the Colonial period ended. Although I have followed Smailus in referring to the earlier variety as Colonial Yucatec, I have singled out the language of the sixteenth century for special attention as a benchmark for historical comparison and have traced the changes it underwent during the seventeenth, eighteenth, and nineteenth centuries. “Modern Yucatec” refers to the Maya language as it is spoken today. Practically speaking, “today” means the period after 1930, when the first audio recordings of the language were made (McQuown 1979:41).

2. SOURCES

For the early Colonial period, the most comprehensive source on the language was a Maya-Spanish dictionary known as the *Calepino de Motul*, a manuscript consisting of 465 folios that has been attributed to fray (friar) Antonio de Ciudad Real, a Spanish Franciscan priest who arrived in Yucatan in 1572 (Acuña 1984: xxvi-xxvii, 2001:19; Hanks 2010:164–165). A reference to the comet of 1577 on folio 58v of the *Calepino* implies that the extant version of the manuscript was compiled after that year (Ciudad Real 1600?), and the death of Ciudad Real on 5 July 1617 serves as a *terminus ante quem* for his project. The recent grammars of the sixteenth-century version of the language by McQuown (1967) and Smailus (1989) are heavily based on the *Calepino de Motul*.¹ In addition, there are ca. 20 provenienced documents covering the period from 1557 to 1600. To my knowledge, no one has considered the provenienced documents as sources of grammatical information on Colonial Yucatec.

In the seventeenth century, a grammar attributed to friar Juan de Coronel was published in 1620, and a later grammar by friar Gabriel de San Buenaventura was published in 1684. A dictionary associated with a Diego Rejón probably dates to the second half of this century (Barrera Vásquez et al. 1980:21a-24a; but see Acuña 1993:22). I have in my possession 52 documents of seventeenth-century date.

During the eighteenth century, friar Pedro Beltrán de Santa Rosa María published a detailed grammar of Maya in 1746. The number of legal documents increases dramatically during that century to 646 in all. High concentrations of wills during 1727–1728, 1730, 1733, 1738, and 1751 correspond to years of epidemics and famines (V. Bricker and Hill 2009; Restall 1997:246–247). The Bourbon Reforms in the late eighteenth century generated a plethora of documents that ultimately resulted in the transfer of ownership of land from Indian into Spanish hands (Farriss 1984:366–375). Every decade in that century is represented by two or more documents, and there are documents for every year between 1725 and 1743.

The first five decades of the nineteenth century are also well represented by more than 150 provenienced documents. In the 1830s and 1840s, they are largely concerned with economic and political events leading up to the Caste War of 1847. Between 1847 and 1853, the Maya documents are preoccupied with troop movements, the unsuccessful attempts to broker a peace, and the development of the Cult of the Talking Cross in what is today the state of Quintana Roo. After 1860, the number of Maya documents dwindles to almost nothing. I have one document for the 1890s.

The documentary record resumes only in the 1930s, with 19 letters written by descendants of the rebel Maya, living in what is today the state of Quintana Roo, addressed to the archaeologist, Sylvanus G. Morley, who was working at Chichen Itza at the time (Sullivan 1989). During the same decade, Manuel J. Andrade initiated the modern period of the study of Maya grammar by making the first sound recordings of the spoken language on aluminum disks (McQuown 1979:41).

I have focused on provenienced documents in this discussion of sources because I believe that they have the greatest potential for tracking decade-by-decade changes in the Maya language. Because we know when and where they were produced, they can provide us with a chronology for dating unprovenienced documents and with distributional data for identifying geographical dialects.

Dictionaries, grammars, and legal documents are in a sense hybrid sources, involving an interface between the Maya and Spanish cultures and languages. Dictionaries are conditioned by the elicitation procedures of the lexicographers, which we know were based on a detailed questionnaire used for many Mesoamerican languages, which often forced Maya cultural concepts into a European mold (Hanks 2010; Laughlin and Haviland 1988:1–27). Grammars, too, were ethnocentric, applying Latin paradigmatic structures (and strictures) to Maya data. Legal documents, although actually produced by Maya scribes, imitated Spanish discourse models and were highly formulaic in Europeanized ways.

In addition to these sources, there were also the so-called Books of Chilam Balam, a set of related manuscripts that were largely written in Maya. There are nine such Books still in existence, the ones from Chumayel, Tizimin, Mani (also known as the *Códice Pérez*), Kaua, Tekax, Tusik, Chan Kan, Ixil, and the Nah, which is named after a person, not a place. The Chumayel, the Tizimin, and the Tusik are primarily historical and prophetic works. The Kaua, Chan Kan, and Mani are largely astrological in content, and the rest focus on medicine (as does the second half of the Kaua) (Miram 1994:213, Table 1).

Some scholars regard these Books as major sources on Precolumbian Maya culture, unlike the legal documents considered above, which were clearly produced to serve a Colonial purpose. However, much of the content of the Books of Chilam Balam is of European origin, and many of the texts are demonstrably Maya translations of Spanish sources (V. Bricker and Miram 2002; Hanks 2010; Knowlton 2010). In this respect, the Books of Chilam Balam are just as problematical as the dictionaries, grammars, and legal documents that were also affected by Spanish culture.

The Books of Chilam Balam are all late Colonial copies of earlier manuscripts, and even though some of the Maya texts in them may ultimately be of Prehispanic origin, this does not mean that the variety of the language represented in them is similarly archaic (e.g., **2.4.1.** and note 3 in Chapter 15). Furthermore, because the temporal provenience of the texts from which they were copied is usually not mentioned, they cannot be used for an examination of grammatical changes in the language over time. Instead, they became useful for fleshing out the historical record after the basic patterns of pronominal and aspectual inflection of verbs had been detected in documents whose temporal provenience was not in doubt (e.g., **5.2.** in Chapter 5).

There are, of course, many dialects of Modern Yucatec, only a few of which have been documented in detail. In the 1930s, Manuel Andrade (1940) carried out the first research on Maya using modern techniques, including the recording of texts on aluminum discs (see McQuown 1979 for a transcription, analysis, and translation of one of those texts). The next significant research on Maya was that of Robert Blair (1964), who produced a description of noun and verb morpho-syntax and a three-volume textbook (Blair and Vermont-Salas 1965, 1967, 1993) and associated reels of magnetic tape. He was followed by Michael Owen (1969), whose dissertation on the semantic structure of verb roots and a small root dictionary (1971) have also been useful, as has the dissertation of Marlys McClaran Steffle (1972) on lexical and syntactic structures. More recently, the work of William Hanks (1990) on deixis, John Lucy (1992, 1993) on numeral classifiers and quotative particles, and Yoshiho Yasugi (2005) on adverbial focused constructions has informed my understanding of Yucatecan Maya grammar.

In 1967, Marshall Durbin, my predecessor at Tulane, decided to teach a course in Spoken Yucatecan Maya, with the assistance of Eleuterio Poʔot Yah, a native speaker of Maya from the town of Hocaba near Merida. Durbin worked with Poʔot Yah for a number of years on a root-and-stem dictionary of this dialect. His research resulted in the publication of several articles (Durbin 1970, 1973; Durbin and Ojeda 1978a, 1978b, 1982), but the dictionary was never completed.

Durbin left Tulane in 1969, and I replaced him as the instructor of the Maya language course. Poʔot Yah continued to come to Tulane to assist with the course, and he and I worked together on the grammar of his dialect, publishing a series of articles (V. Bricker 1970, 1978, 1979a, 1979b, 1981, 1999).

Durbin eventually gave up his plan to publish a dictionary, leaving us free to produce, first, a small book on verbs for use by the students in our course and interested scholars (Poʔot Yah and V. Bricker 1981) and, more recently, a root-and-stem dictionary of the Hocaba dialect of Modern Yucatec accompanied by a grammatical sketch (V. Bricker, Poʔot Yah, and Dzul de Poʔot 1998). This work serves as my point of reference for Modern Yucatec and the source of the phonetic spellings of the examples in the chapters that follow.

3. METHODOLOGY

3.1. PALAEOGRAPHY. The legal documents and native books that served as the principal sources for this study were written in various hands by Maya scribes with different educational backgrounds. Some of them were clearly well trained in calligraphy and spelling. Others seem to have had a more rudimentary education. Accordingly, there is considerable variation in the spelling of both Maya and Spanish words in the manuscripts.

In transcribing the texts on which this work is based, I decided to preserve the original spelling as much as possible. My decision was influenced by an experience I had many years ago, in the mid 1960s, when I was training native speakers of Tzotzil in Zinacantán, Chiapas, to write texts in their language. For

that purpose, I introduced them to a phonemic alphabet that members of the Harvard Project with which I was then affiliated had developed for writing Tzotzil. Most of the Zinacantecs who were learning to write Tzotzil understood immediately the need to use a consistent orthography and system of word division for representing utterances in their language. However, a few did not grasp the principle of the phoneme and continued to represent the allophones of a single phoneme with different letters.

A case in point was the Tzotzil bilabial ejective, which has two allophones [b'] and [ʔm]. In intervocalic position, this consonant is realized as [b'], as in [čob'in], 'take possession of planted cornfield.' However, when it appears at the end of an utterance or is followed by another consonant, it is pronounced as [ʔm]: [čoʔm] 'planted cornfield' and [čoʔmtik] 'region of planted cornfields' (Laughlin 1975:122). Most of the Zinacantecs I trained used /b'/ in all environments: /čob', čob'in, čob'tik/. However, a few always distinguished between "čob'in," on the one hand, and "čoʔm" and "čoʔmtik," on the other.

In preparing texts for concordances, there is obviously an advantage in using canonical spellings for roots and affixes, because only in that way will all instances of a single morpheme be brought together in an alphabetical list. However, canonical spellings do not preserve phonological distinctions of the kind I have described for the Tzotzil word for 'planted cornfield.' Because my ultimate goal in producing the concordances was to use them for a grammatical rather than a strictly content or context analysis, I resisted the temptation to regularize the spellings of the words that I encountered in the manuscripts, choosing, instead, to preserve the original spellings as faithfully as possible, even when I was virtually certain that they were not correct. Later, when it came time to analyze the phonological structure of the language, the discrepant spellings proved to be very helpful sources of information on such phonological processes as assimilation, metathesis, deletion, and epenthesis.

3.2. CONCORDANCES. My concordances differ from those of other scholars (e.g., Arzápalo Marín 1987; H.-M. Miram and W. Miram 1988; Owen 1970a, 1970b) in the sense that they focus on the morpheme rather than the word as the unit of analysis. After transcribing the texts, I separated the morphemes in the words with hyphens. Each word is separated from the one preceding or following it by a space. I then used a program written in the SNOBOL language by William R. Ringle for producing an alphabetized concordance of all the morphemes in the texts. My concordances include every morpheme, even those of very high text frequency, which have been excluded from other concordances of Maya manuscripts in order to reduce their length (Arzápalo Marín 1987 is an exception). Because most of the high frequency morphemes have multiple grammatical functions, the concordances would have been much less useful for my purposes had I excluded them.

The first concordances I produced were based on the Books of Chilam Balam of Chumayel and Tizimin (V. Bricker 1990a, 1990b) in connection with my study of the grammar of Maya hieroglyphs (V. Bricker 1986). Since then, I have prepared separate concordances for each century of the Colonial period, as well as concordances of documents from individual towns. The latter have permitted me to track grammatical changes in space as well as time.

The western part of the peninsula is better represented in my sample than the east (Figure 1-1). For the northwest, I have 512 documents from the town of Tekanto, covering the period 1590–1835. The Puuc region is attested by two collections, one from the Hacienda Tabi (52 documents) and the other known as the Xiu Chronicles (39 documents; Quezada and Okoshi Harada 2001). Together they span the years 1557–1830. In the east, near Valladolid, the Titles of Ebtun are an important source of information for the years 1600 to 1835 (125 documents; Roys 1939). The southeast is represented only for the late eighteenth century by seven documents from Chunhuhub.

3.3. DATING GRAMMATICAL CHANGES IN THE WRITTEN RECORD. A significant problem for assigning dates to the first appearance of grammatical changes in the written record is how to distinguish original docu-

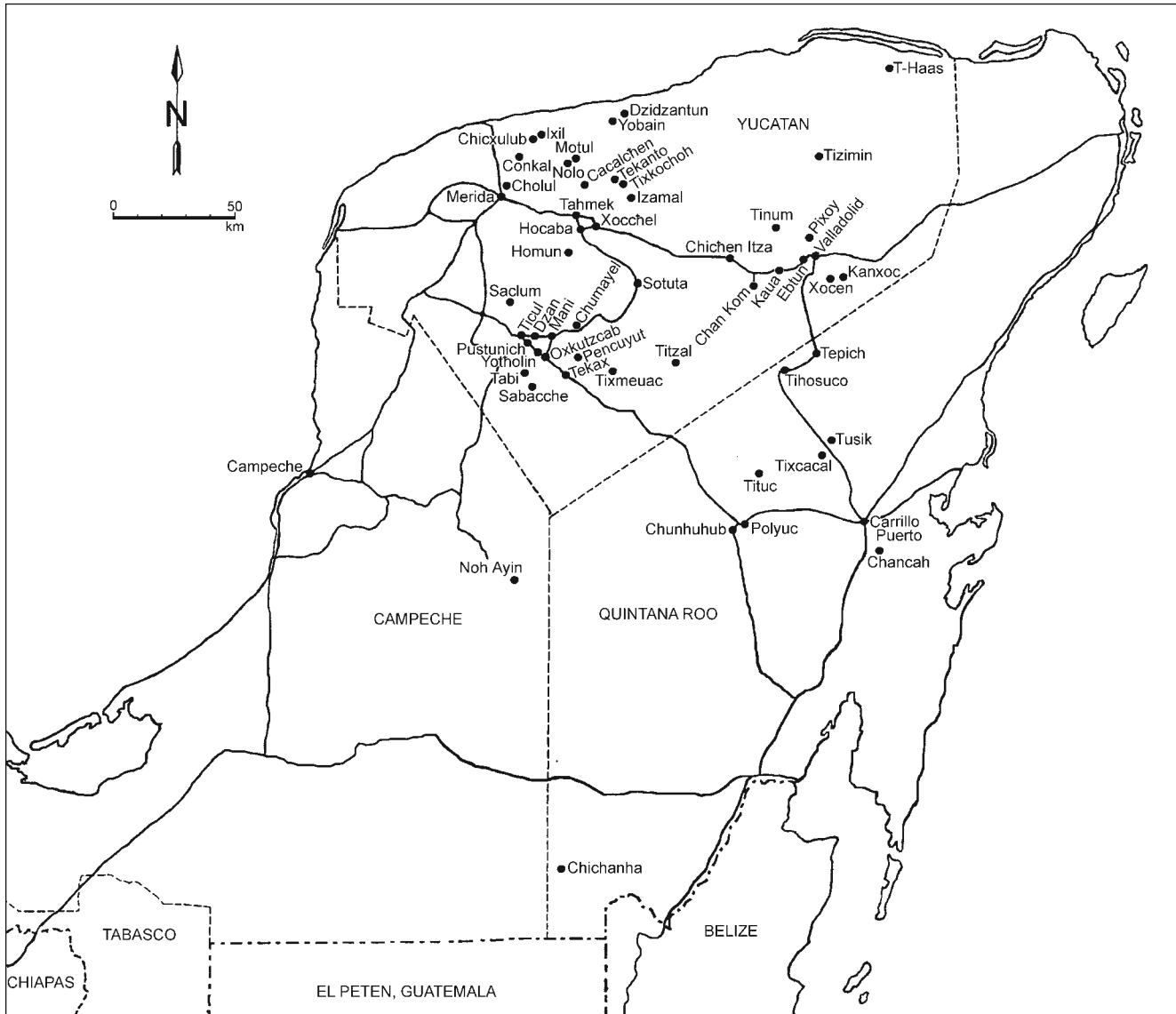


Figure 1-1. Location of Towns that Provided Maya Examples Quoted or Mentioned in the Grammatical Analysis When Known. Roads Shown on the Map Are Among Those of the Late Twentieth Century.

ments from later copies bearing early dates but altered in some ways. The documents in the Tabi collection were helpful in this regard because they include both originals and copies of the same documents, whose handwriting conventions varied by century. In some cases, the documents contained a series of dated postscripts in different hands, suggesting that they were added at different times. In others, the text and its postscripts were in the same hand, indicating that the document in question was a later copy. The same criteria were used for distinguishing between originals and copies in the Titles of Ebtun.

Another way of approaching the question is in terms of where a document appears in a collection. If it is a testament in a dense group of such documents, then it is likely to be an original. The 373 testaments bearing dates from the first half of the eighteenth century in Tekanto were clearly originals because they appeared together in chronological order, and the handwriting changed whenever a new notary came into office. On the other hand, a single testament filed with other documents in connection with a dispute over land tenure that took place in a later year, but in the same handwriting as the later documents, is likely to be a copy of an earlier document.

Finally, there is the question of how closely the dates for the introduction of grammatical changes in the written sources correspond to the dates when they first appeared in the spoken language. Because what appears in the written record often has a more conservative grammatical structure than in speech, it is probably best to regard the dates for the introduction of grammatical changes inferred from written documents as a *terminus ante quem* for the spoken forms.

4. SCRIBES

Literacy has deep roots in the Yucatan peninsula, beginning as early as the third century AD and continuing into modern times. Before the conquest of Yucatan by the Spaniards in 1545, the Maya recorded their language in a hieroglyphic script that contained a mixture of logographic, syllabic, and semantic signs. The word for “scribe” was *ah ꝑib* (= phonetic [ʔax ꝑiibʔ]) in Colonial Yucatec, a title that also appeared in hieroglyphic texts (Stuart 1987:1–8). The term continued to be used after the Conquest for the notary who served in the local town government established by the Spaniards during the second half of the sixteenth century, along with the Spanish term *escribano* (often abbreviated as *ess.^{no}*). By the beginning of the seventeenth century, *escribano* had completely replaced *ah ꝑib* as the title for this official.

The indigenous residents of Colonial Maya communities belonged to one of two strata: nobles (*almehenob*) and commoners (*maseualob*). Thompson (1999:278–279, 407n55) has shown that scribes came from both strata in eighteenth- and early nineteenth-century Tekanto. In a study of the large corpus of 373 testaments dated to the first half of the eighteenth century, I discovered that the higher-ranking scribes limited their output to the testaments of elite Maya who had significant amounts of property to bequeath to their descendants, whereas the purely formulaic testaments of poor Maya were recorded by commoner scribes (V. Bricker 2015).

Perhaps because of their long tradition of literacy, the Maya scribes of Yucatan rapidly adopted the Latin-based alphabet introduced by the Spanish priests not long after the Conquest. The earliest known document written in this alphabet was the *Crónica de Mani*, a land survey, which bears a date of 1557, only twelve years after the Conquest.

The documents penned by many scribes suggest that they had been trained to use canonical spellings of Maya words that were often not exact reflections of their actual pronunciation. A few scribes, however, either because of poor training or a desire to record the spoken language more faithfully, departed from the norm and recorded the language as it was actually spoken; their documents provide essential information on the phonological processes that must have been in effect in Colonial times.

NOTE

1. There is strong evidence in the example sentences in the *Calepino de Motul* that it was compiled in Merida or nearby. More than 80 example sentences in the *Calepino* refer to going to, coming from, residing in, or, in a few cases, activities taking place in Conkal (cumkal), a town now a suburb of Merida, suggesting that the region to the north and east of Merida accounts for the principal dialect of Colonial Yucatec reported in the *Calepino* (Figure 1-1). In addition, there are references to Motul (mutul) in four example sentences. The two sets of data suggest that the *Calepino* represents the dialect spoken in the region northeast of Merida itself. In addition, a few entries in the *Calepino* refer to examples typical of other dialects: “in the language of the coast,” “in the language of Campeche,” and “in the language of Mani and Tekax.” They indicate that the *Calepino* contains examples of multiple dialects.

CHAPTER 2

ORTHOGRAPHY

Grammars of Modern Mayan languages, for which data can be obtained through elicitation and sound recordings, frequently begin with a chapter on phonology (e.g., Andrade 1955; Attinasi 1973; Dayley 1985; Edmonson 1988; England 1983; Hofling 2000), whereas a grammar documenting a language that is known primarily from written sources must first address the orthographic conventions and their variations, as well as their limitations, that may mask the phonological patterns that once characterized it. Only when the relationship between the orthographic system and the phonetic segments in this language is well understood will it be possible to specify the phonological rules that characterized the Colonial manifestation of this language and to determine how they are related to such rules in the modern spoken daughter language(s), a task that has necessarily been postponed until Chapter 3.

1. PHONETIC SEGMENTS

Colonial Yucatec had 21 consonants and six vowels (a, e, i, o, u, and schwa) (V. Bricker and Orie 2014). The consonant system is shown in (1) using the modified International Phonetic Alphabet employed for writing Modern Yucatec.

(1)	<u>Labial</u>	<u>Alveolar</u>	<u>Palato-alveolar</u>	<u>Palatal</u>	<u>Velar</u>	<u>Laryngeal</u>
Stops	p	t			k	ʔ
Ejectives	p' b'	t' tʰ	č'		k'	
Fricatives		s	š		x	h
Affricates		tʃ	č			
Nasals	m	n				
Approximants	w	l		y		

2. ORTHOGRAPHIC CORRESPONDENCES

2.1. CONSONANTS. Beginning in the Colonial period, Maya scribes used a different orthography, based on the Latin alphabet, that the Spanish priests had adapted for writing their language. Correspondences between the letters of that alphabet and the phonemes of their language are given in (2):

(2)	<u>Phonetic</u>	<u>Colonial</u>
	ʔ	´ or ` (on antecedent vowel), k, c, t
	bʼ	b
	ɬ	ɬ, tz
	ɬʼ	ɔ, dz
	č	ch
	čʼ	cñ
	h	h, j
	k	c, qu
	kʼ	k, g
	l	l
	m	m
	n	n
	p	p
	pʼ	p̣, pp, ɸ
	s	ç, z, s
	š	x
	t	t
	tʼ	tñ, th, d, ð
	w	u, v
	x	h, j
	y	i, y, ll

Because Colonial Yucatec survives only in written form, it is not possible to describe the phonetic segments in detail. However, variations in spelling may serve as clues to pronunciation, as I show in Chapter 3.

The table in (1) suggests that stops and affricates can be grouped into two series: plain and glottalized. Furthermore, the non-sonorant consonants are generally voiceless, except glottalized [bʼ], which does not have a plain counterpart. There are two nasals ([m] and [n]) and two glides ([w] and [y]). [l] is the only phonemic liquid.

Colonial Maya texts often include Spanish loans that required the use of seven additional letters, representing three voiced stops (b, d, and g), a voiceless labiodental fricative (f), a palatalized nasal (ñ), a flap (r), and a trill (rr). The voiced bilabial stop contrasts with the voiced bilabial ejective in Modern Yucatec, but the same symbol ("b") represented both consonants in Colonial Yucatec. [r] is an allophone of [l] in Modern Yucatec, occupying the medial position in disyllabic roots; it varies freely with [l] in Spanish loans in both Colonial and Modern Yucatec (see **2.1.5.** below).

2.1.1. VELAR AND LARYNGEAL "H." It should be noted that the Colonial Maya used "h" to represent both velar [x] and laryngeal [h] at the beginning of words (see Kaufman 1983:210). The *Calepino de Motul* describes the velar "h" as "strong" (*rezia*) and the laryngeal "h" as "weak" (*simple*), characterizing the weak "h" as one that is only lightly fricative and that is often lost after pronouns (Ciudad Real 1600?: fol. 202r), and it groups words beginning with the two "h"s separately. In medial and final positions, it represents [x] with "h" and [h] with "Ø." For example, the *Calepino* lists hun 'one' (phonetically [xun]) under words beginning with strong "h" and huun 'paper' (phonetically [hú?un]) under words beginning with weak "h." Other examples of initial strong and weak "h" are listed in (3) and (4) below:

(3)	<u>Strong “h”</u>	<u>Phonetic Spelling</u>	<u>Gloss</u>
	<u>h</u> ach	xač	very
	<u>h</u> alach	xaláʔač	true
	<u>h</u> anal	xanal	eat
	<u>h</u> at	xat	burst
	<u>h</u> ay	xay	how many?
	<u>h</u> el	xèel	replacement, successor
	<u>h</u> et	xet	split
	<u>h</u> ex	xéʔeš	however
	<u>h</u> ij¹	xiʔ	file
	<u>h</u> ičh	xičʼ	tighten, knot
	<u>h</u> il	xíil	picket
	<u>h</u> obón	xobʼon	cavity
	<u>h</u> och	xoč	harvest maize
	<u>h</u> ool	xóʔol	head
	<u>h</u> uchh	xučʼ	grind
	<u>h</u> up	xup	insert
(4)	<u>Weak “h”</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	<u>h</u> aa	haʔ	water
	<u>h</u> aab	háʔabʼ	year
	<u>h</u> ačh	hačʼ	chew
	<u>h</u> aaz	háʔas	banana
	<u>h</u> é	heʔ	egg
	<u>h</u> ec	hek	straddle, mount
	<u>h</u> epp	hepʼ	tighten, squeeze
	<u>h</u> o	hóʔoh	five
	<u>h</u> ol	hol	pierce, bore, prick
	<u>h</u> opp	hóʔopʼ	begin
	<u>h</u> oth	hóʔotʼ	scratch
	<u>h</u> uh	hùux	iguana

On the other hand, in final position the Calepino limits orthographic “h” to words ending in [x] (e.g., [lax] ‘slap,’ written as lah, but [čʰah] ‘give,’ written as ɔa). Additional examples of final strong “h” and weak “h,” respectively, are listed in (5) and (6) below:

(5)	<u>Strong “h”</u>	<u>Phonetic Spelling</u>	<u>Gloss</u>
	<u>a</u> h	ʔax	wake up
	<u>b</u> ah	bʼax	nail
	<u>b</u> oh	bʼox	hit something hollow
	<u>c</u> ah	kàax	town, place
	<u>c</u> eh	kéex	deer
	<u>c</u> oh	kox	puma
	<u>c</u> uh	čux	burn
	<u>c</u> ʰah	čax	drip
	<u>c</u> ʰoh	čʰòox	indigo

ha <u>h</u>	xàax	true, permanent
hu <u>h</u>	hùux	iguana
la <u>h</u>	láax	all
lo <u>h</u>	lox	redeem
no <u>h</u>	nox	principal
pa <u>h</u>	pax	sour
puu <u>h</u>	púux	carry in apron
to <u>h</u>	tòox	straight, direct
tʰa <u>h</u>	t'ax	drip
ʒa <u>h</u>	ʒax	fry
ua <u>h</u>	wàax	tortilla
uij <u>h</u>	wíʔix	hunger, famine

(6)	<u>Weak "h"</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	ba	b'ah	gopher
	be	b'eh	road
	ci	kih	henequen
	co	koh	tooth
	chu	čúuh	flask, canteen
	e	ʔeh	file
	ka	k'áah	bitter
	ku	k'uh	God
	le	leh	lasso
	na	nah	house
	ʒa	ʒah	recover
	u	ʔuh	lunar month
	ua	wáah	if, or
	xe	šeh	vomit

Intervocally, only [x] is represented by "h" (e.g., lahun 'ten' = [laxun], but ɔaic 'give it' = [ʔ'ahik]). Additional examples of intervocalic strong "h" are given in (7):

(7)	<u>Strong "h"</u>	<u>Phonetic Spelling</u>	<u>Gloss</u>
	a <u>h</u> au	ʔaxaw	ruler
	ba <u>h</u> un	b'axun	how much?
	ča <u>h</u> um	č'axun	woodpecker
	č <u>h</u> uhuc	č'uxuk	sweet
	la <u>h</u> un	laxun	ten
	ma <u>h</u> an	maxàan	borrowed
	me <u>h</u> en	mexen	man's child
	to <u>h</u> ol	toxol	payment
	zo <u>h</u> ól	soxol	dead leaves
	zu <u>h</u> uy	suxuy	virgin

Intervocalic examples of weak “h” are most evident across morpheme boundaries:

(8)	<u>Weak “h”</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	u be-il	u b'eh-il	his road
	c u ɔa-ic	k u ʔ'ah-ik	he gives it
	ku-e	k'u _h -eʔ	as for God
	u le-ah-en	u le _h -ax-en	he deceived me
	siil	si _h -il	gift
	y u-il	y u _h -il	the lunar month
	xe-an	šeh-áʔan	vomited

They can be compared with intervocalic examples of strong “h” across morpheme boundaries, which is represented by /h/:

(9)	<u>Strong “h”</u>	<u>Phonetic Spelling</u>	<u>Gloss</u>
	ah-en	ʔàax-en	I woke up
	u čih-il	u č'ix-il	he grows
	u ha _h -il	u xàax-il	the truth
	in ká _h -al	in k'áʔax-al	I remember
	in ka _h -ol-t-ah	in k'ax-óol-t-ax	I recognized him
	ko _h -an-il	k'ox-áʔan-il	sickness
	au oh-el	aw ox-el	you know it
	çih-on	síix-óʔon	we were born

We know from documents that are provenienced in both time and space that the distinction between velar and laryngeal “h” was maintained throughout the Colonial period. The two consonants merged into phonetic [h] during the nineteenth century, but the modern language still contains phonological evidence of the distinction between [x] and [h] (see Orie and V. Bricker 2000 and Chapter 3).

2.1.2. GLOTTAL STOP. The glottal stop is not recorded overtly in the Colonial script, but it can be inferred from the following spelling practices: First, glottal-stop-final words are frequently signalled by doubling the vowel that immediately precedes it, in order to distinguish them from weak “h”-final words:

(10)	<u>Double vowel</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	caa	kaʔ	grinding stone
	cij	kiʔ	tasty, delicious
	chaa	čaʔ	loosen
	chee	čeʔ	wood, tree
	chij	čiʔ	mouth
	čhoo	č'oʔ	rat
	haa	haʔ	water
	lee	leʔ	leaf
	moo	moʔ	macaw
	naa	naʔ	mother
	nij	niʔ	nose
	paa	paʔ	break

<u>pee</u>	peʔ	carry by rim
<u>taa</u>	taʔ	excrement
<u>too</u>	toʔ	wrap
<u>yaa</u>	yaʔ	sapote
<u>zij</u>	siʔ	firewood

(11)	<u>Weak "h"</u>	<u>Phonetic Spelling</u>	<u>Gloss</u>	<u>Double Vowel</u>	<u>Phonetic Spelling</u>	<u>Gloss</u>
	<u>c</u> i	kih	sisal	<u>c</u> ii	kiʔ	tasty
	<u>k</u> u	k'uh	God	<u>k</u> uu	k'uʔ	nest
	<u>l</u> e	leh	lasso	<u>l</u> ee	leʔ	leaf
	<u>n</u> a	nah	house	<u>n</u> aa	naʔ	house

Second, the glottal stop may be marked by an accent over the preceding vowel (e.g., hé 'egg' = [heʔ], hà 'water' = [haʔ]); this too provides a contrast with words ending in laryngeal [h]. And third, in glottal-stop-initial words, the first person plural subject pronoun c (phonetic [k]) is sometimes represented by a glottalized k (written as "k"), suggesting that the scribe realized that the pronoun was followed by a glottal stop:

(12)	<u>Phonetic Input</u>	<u>Colonial Spelling</u>	<u>Aberrant Spelling</u>	<u>Gloss</u>
	k ʔohel	c ohel	k ohel	we know it
	k ʔilah	c ilah	k ilah	we saw it
	k ʔáʔalik	c alic	k alic	we say it

Doubled vowels are found in inter-consonantal as well as final position, where they also imply the existence of a glottal stop:²

(13)	<u>Double vowel</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	<u>aca</u> an	ʔakáʔan	seated firmly
	<u>baa</u> l	b'áʔal	thing
	<u>buu</u> l	b'úʔul	bean
	<u>caa</u> n	káʔan	sky
	<u>haa</u> z	háʔas	banana
	<u>hoo</u> l	hóʔol	head, hair
	<u>hoo</u> lhun	hóʔolxun	fifteen
	<u>luu</u> m	lúʔum	land
	<u>toob</u> ol	tóʔob'ol	be wrapped
	<u>uij</u> h	wíʔih	hunger, famine
	<u>xij</u> c	šiʔik	he might go

Accents also occasionally signal intervocalic glottal stops:

(14)	<u>Accent</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	<u>b</u> ùl	b'úʔul	bean
	<u>c</u> à n	káʔan	sky
	<u>hà</u> hàl	háʔaháʔal	summer

2.1.3. OTHER VELAR CONSONANTS. Maya Colonial orthography distinguishes between the plain and glottalized velar consonants, [k] and [k'], for the most part using “c” for the former and “k” for the latter. Because “c” represents [s] before [e] and [i] in Spanish orthography, [ke] and [ki] must be written as “que” and “qui,” respectively. Colonial Maya scribes occasionally represented [k] as “qu” before front vowels:

(15)	<u>Common form</u>	<u>Alternative form</u>	<u>Gloss</u>
	ba <u>c</u> el	ba <u>q</u> uel	bone
	ce <u>h</u>	qu <u>e</u> h	deer
	ce <u>n</u>	qu <u>e</u> n	I am
	ci	qu <u>i</u>	<u>Agave</u> sp.
	ci <u>b</u>	qu <u>i</u> b	candle
	ci <u>c</u> i	qu <u>i</u> ci	sweetly
	ci <u>l</u> iich	qu <u>i</u> liich	holy
	ke <u>x</u> bil	qu <u>e</u> xbil	to be exchanged?
	li <u>c</u> il	li <u>q</u> uil	with which
	sa <u>c</u> ij	sa <u>q</u> uij	Valladolid
	t av uy <u>i</u> ce <u>x</u>	t av uy <u>i</u> qu <u>e</u> x	you-all hear it
	te <u>n</u> ce <u>n</u>	te <u>n</u> qu <u>e</u> n	I who am
	ui <u>n</u> i <u>c</u> e	ui <u>n</u> i <u>q</u> ue	as for the man
	u na <u>c</u> i <u>c</u> u ba	u na <u>c</u> i <u>q</u> u <u>b</u> a	she approaches

Note that, in one case (quexbil for kexbil), “qu” seems to substitute for the glottalized “k,” and in another (u naciquba), “qu” is used even when it does not precede a front vowel.

2.1.4. GLIDES. In the Colonial orthography, [w] was represented by both “u” and “v,” as was the vowel [u]. Similarly, both “i” and “y” are found representing consonantal [y], as well as vocalic [i]. In general, “y” was the grapheme of choice for [y]-initial words, although there were occasional exceptions: yan ‘exist’ was sometimes written as ian, for example. In word-final position, [y] was just as likely to be written as “i”:

(16)	<u>Chumayel</u>	<u>Tizimin</u>	<u>Tabi</u>	<u>Tekanto</u>	<u>TOTAL</u>
bay	50	6	76	7	139
bai	0	21	9	10	40
lay	326	2	225	26	579
lai	0	107	7	7	121
uay	110	17	81	28	236
uai	0	26	4	0	30
ix	235	208	199	53	695
yx	118	0	78	7	203

For example, lay ‘this’ was the spelling of choice in the Book of Chilam Balam of Chumayel (326 instances), but not in the Book of Chilam Balam of Tizimin, where there are 107 instances of lai and only two of lay (see [16] above). Similarly, the Chumayel contains 50 instances of bay ‘thus’ but none of bai, whereas the Tizimin has 21 instances of bai versus only six of bay (see [16] above). There is a similar relationship between “u” and “v” in Colonial texts.

There are also occasional examples of the use of “l” for consonantal /y/ in word-initial and intervocalic positions:

(17)	<u>Word-Initial</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	llail	yahil	painful
	llanil	yanil	existing
	ca lledzec	káʔah yéʔeʔʔek	it may be squeezed
	lletel	y éetel	with, and
	llokól	y óok’ol	above, upon
	llum	yùum	father
(18)	<u>Word-Medial</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	pallal chi	payal čìʔ	prayer
	sacllulen	sak-yuléʔen	abraded white (color)
	ualleb	wayeb’	name of five-day intercalary month at end of Maya year

2.1.5. LIQUIDS. [r] is an allophone of [l] in Modern Yucatec, occupying the medial or final position in disyllabic roots:

(19)	k’e ^{er} éʔes	k’e ^l éʔes	to eye
	p’u ^r úʔus	p’u ^l úʔus	to inflate
	silí ^r	silí ^l	<i>Diospyros cuneata</i> Standley

Furthermore, the frequency of words containing [r] increases as one moves from the northwestern to the southeastern part of the peninsula, with [l] being replaced by [r]. This is the case with the Maya word for “goblin,” which is ʔaluš in the northwest around Merida and ʔaruš in the southeast around Chetumal. [r] varies freely with [l] in Spanish loans in both Colonial and Modern Yucatec, as in the multiple spellings of solar ‘house plot, building plot’ in my corpus of testaments from Tekanto:

- (20) solar
soral
solal
sorar

In soral, the [l] has metathesized with the [r] in solar, whereas in solal, [l] has replaced [r], and in sorar, [r] has replaced [l].

Another Colonial example of metasthesis involving [l] and [r] is genelar (< general ‘general’). For Modern Yucatec, I encountered two sets of examples in Ebtun in 1979. The first is legra (< regla ‘menstruation’). The second consists of three alternative renditions of the name Gabriela:

- (21) Glabiela
Grabiela
Glabiera

2.1.6. VOICELESS BILABIAL STOP AND LABIODENTAL FRICATIVE. In Spanish loans containing [f], [f] was usually replaced by [p], as in *pirma* (< *firma* ‘signature’) and *porma* (< *forma* ‘form’). In loans containing both [f] and [p], [f] was treated as an allophone of [p], in much the same way that [r] was treated as an allophone of [l] (see 2.1.5. above), in some cases resulting in the metathesis of the two consonants. Thus, *prefacio* ‘preface’ was sometimes spelled *fērpacio*, and Karttunen (1985:90) mentions a spelling of *purificación* ‘purification’ as *furipicacion*. Occasionally, a scribe would err in the opposite direction, changing [p] to [f] in words of Maya origin. In a document reporting a survey of the forest belonging to Ebtun on November 24, 1833, there were thirteen such hypercorrections:

(22)	<u>Colonial</u>	<u>Variant</u>	<u>Gloss</u>	
	<i>pach</i>	<i>fac[h]</i>	boundary	1
	<i>payabil</i>	<i>fayabil</i>	part, piece	1
	<i>sutpahi</i>	<i>sutfahi</i>	it turned	4
	<i>sap</i>	<i>saf</i>	fathom	4
	<i>payaab</i>	<i>fayaab</i>	part, piece	3

2.1.7. EJECTIVES. In Modern Yucatec, initial stops are not aspirated, but final stops are (Orie and V. Bricker 2000:297). In a few Colonial documents, the Spanish letters for the voiced stops (b, d, g) were recruited for representing the ejectives, *p'*, *t'*, and *k'*, in initial position: a “barred b (*ḃ*),” a “barred d (*ḋ*),” and “g.” Similarly, a common variant of the symbol for the alveolar fricative ejective is “dz,” contrasting with the symbol for its plain counterpart (tz):

(23)	<u>Colonial</u>	<u>Variant</u>	<u>Gloss</u>
	<i>ppel</i>	<i>ḃel</i>	thing
	<i>tḥan</i>	<i>ḋan</i>	word
	<i>kal</i>	<i>gal</i>	twenty
	<i>ɔol</i>	<i>dzol</i>	peel
	<i>ḷol</i>	<i>tzol</i>	place in order

2.1.8. DOUBLE CONSONANTS. In the Book of Chilam Balam of Chumayel, 148 words are written with doubled consonants that have no phonetic source or grammatical functions in Colonial Yucatec. Only the simple consonants, b, c, h, l, m, n, s, t, w (written as u), x, and y are doubled in the Chumayel manuscript. For the most part, they represent the final consonant of CVC or CVCVC morphemes that are followed by inflectional suffixes of the form VC. Thus, for example, the words, *cab-ob* ‘lands’ and *u mul-il* ‘its mound,’ were written as *cab bob* and *u mul lil*, respectively, on page 16 of the Chumayel. The gaps between the “b’s” and “l’s” imply that the consonants were doubled so that the inflectional suffixes could be represented as CVC syllables. Other examples of such double consonants in words with VC suffixes are:

(24)	<u>Normal spelling</u>	<u>Variant spelling</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	<i>haab-ob</i>	<i>haabḃ boob</i>	<i>háʔab'-óʔob'</i>	years
	<i>y oc-e</i>	<i>yocḃ ce</i>	<i>y òok-eʔ</i>	as for his toe
	<i>uinic-il</i>	<i>uiniḃ cil</i>	<i>wíinik-il</i>	people
	<i>ah-om</i>	<i>aḥ hom</i>	<i>ʔàax-om</i>	he will be awakened
	<i>buul-ob</i>	<i>buulḃ lob</i>	<i>b'úʔul-óʔob'</i>	beans
	<i>em-al</i>	<i>emḃ mal</i>	<i>ʔem-al</i>	Emal [name of town]

hun-ab	hun <u>n</u> ab	xun-ab'	only
kin-ob	kin <u>n</u> ob	k'in-ob'	days
cutulbut-il	cutul cut <u>t</u> il	č'ú?utulč'u?ut-il	niggardly
ahau-ob	ahau <u>u</u> ob	?ahaw-ó?ob'	rulers
yax-al	yax <u>x</u> aal	yá?aš-al	green
uay-om	uay <u>y</u> om	way-om	injured?

Elsewhere I have interpreted these and other examples of consonantal doubling in the Chumayel as vestiges of logosyllabic spelling principles that characterized the Precolumbian Maya hieroglyphic script (V. Bricker 1985, 1989). They represent an orthographic convention, not consonantal gemination (see Chapter 3).

2.2. VOWELS. Colonial Yucatec had six contrastive vowels: i, u, e, o, a, ə. However, the alphabet used for writing Colonial Yucatec contains signs only for the first five vowels; there was no sign for the sixth vowel (schwa). Nevertheless, the presence of schwa can be inferred from its variable representation as “a” and “i” in the Calepino de Motul and other Colonial sources. By the late nineteenth century, schwa had been lowered to /a/ or, in a few cases, raised to /i/ (see **2.3.3.** in Chapter 3), leaving Modern Yucatec with only five vowels. The other daughter languages of Colonial Yucatec—Itsaj, Mopan, and Lacandon—have retained schwa (Bruce 1968:19; Hofling 2000:3; Hofling 2011:3).

A few common nouns whose vowels are doubled or accented in the Calepino de Motul correspond to nouns containing a long vowel in Modern Yucatec:

(25)	<u>Colonial</u>	<u>Gloss</u>	<u>Modern</u>	<u>Gloss</u>
	ác	grass	?àak	grass
	baac	bone, horn (of deer, cow)	b'àak	bone
	baach	type of pheasant	b'aač	chachalaca <i>Ortalis vertula</i>
	baal	brother-in-law	b'àal	brother-in-law
	beel	road, occupation; condition; sin, fault, mistreatment	b'èel	road, occupation
	ceeb	belch	kèeb'	belch
	ix coochol	large crickets	š kòočol	cricket
	yeeb	fog, dew	yèeb'	fog, dew
	nooy	pith, kernel, flesh	nòoy	pith, kernel
	paal	young boy or girl	pàal	infant, child, minor
	toon	penis	tòon	penis

They imply that contrastive vowel length existed in Colonial Yucatec and is still present today (see **2.3.2.3.** in Chapter 3).

2.3. ABBREVIATIONS. Only one Maya word is systematically abbreviated in Colonial texts, namely yetel ‘with, and.’ It is usually represented graphemically as y, in which guise it resembles the Spanish word *y*, whose meaning ‘and’ is similar (although the Book of Chilam Balam of Kaua [V. Bricker and Miram 2002:249] contains one example of Spanish *y* ‘and’ spelled as *ll*, suggesting a misunderstanding of Spanish spelling conventions, which reserve *ll* for the word-initial and intervocalic positions, as in *llano* ‘plain’ and *martillo* ‘hammer’). There are, however, alternative abbreviations for yetel, including *ytel*, *yt.*, and *.y.* . The *yt.* form resembles the abbreviation for the Latin word *ytem* ‘and also,’ the meaning of which is also similar. yetel

is occasionally spelled out in full (as yetel or lletel), and in rare instances the tail of the “y” is barred in the unabbreviated version of the word: yetel.

The Maya scribe borrowed the Spanish convention of abbreviating words ending in nasals, either /n/ or /m/, by deleting the final consonant and placing a tilde (~) over the antecedent vowel:

(26)	<u>Word-Final</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	bolō	b'olon	nine
	cā	kan	four
	lahū	laxun	ten
	mehê	mexen	man's child
	tū	túun	then
	tumê	t u mēen	because
	thā	t'āan	word, language
	xamā	šaman	north
	yā	yāan	exists
	yū	yūum	father

Intervocalic nasals were sometimes treated in the same way:

(27)	<u>Intervocalic</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	māik	ma _n ik'	seventh day of Maya week
	nūya	núumyah	suffering
	tācaz	ta _m kas	seizure
	tācoch	tāa _n koč	half
	tāxel	tāa _n šel	foreign

Occasionally, other consonants were deleted in spellings of Maya words, using either a tilde, or a period (.), or both to indicate that a letter was missing:

(28)	<u>Abbreviation</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	āy.k.l.	ayik'al	rich, wealthy
	culubū	k u lúub'u _l	it falls
	cuzú	k u sùu _t	it returns
	yahā.cā	y aha _l -kàab'	dawn
	yahā _l il	y ahaw _l il	his reign

In none of these sets of examples does the tilde represent a nasalized vowel.

Colonial texts abound with abbreviations of Spanish loans:

(29)	<u>Abbreviation</u>	<u>Full spelling</u>	<u>Gloss</u>
	Aguar. ^e	aguardiente	rum
	Alc. ^{es}	alcaldes	magistrates
	Al. ^o	Alonso	Alonso
	a. ^s	años	years
	bar. ^{me}	Bartholomé	Bartholomew
	capp. ⁿ	capitán	captain

D. ^s	Dios	God
ess. ^{no}	escribano	scribe
Gou. ^{or}	gobernador	governor
jph	Joseph	Joseph
ju. ^o	Juan	John
mag.	magestad	majesty
nob. ^e	noviembre	November
P. ^e	padre	priest
reg. ^r	regidor	aldermen
s. ⁿ	San	saint
s. ^{or}	señor	Mr.
th. ^{nte}	theniente	lieutenant
̃xpoual	Christobal	Christopher
̃xpto	cristiano	christian

For the most part, they follow the abbreviation conventions of Spanish.

NOTES

1. ii was normally written as ij in sixteenth-century Spanish (see **2.2.** below).
2. Not all doubled vowels imply the presence of a medial or final glottal stop. In some cases, they indicate only that a vowel is long (see **2.2.** below).

CHAPTER 3

PHONOLOGY

This chapter considers syllable structure and phonological processes that result from the concatenation of syllables across morpheme boundaries. It also examines stress and the history of the development of tone in Colonial and Modern Yucatec. Topics such as juncture and intonation that normally come under the purview of phonology are not recoverable from written texts and therefore will not be discussed in this work.

1. ROOT-BASED PHONOLOGICAL PROCESSES

1.1. CANONICAL ROOT SHAPES. The core of the word in Colonial Yucatec is the root, which occurs in two forms: CVC and CVCVC. Monosyllabic roots, composed of an initial consonant, a medial vowel, and a final consonant, are far more common than disyllabic roots. Because the orthography used for Colonial Yucatec did not include a symbol for the glottal stop, glottal-stop initial roots were written as VC (e.g., *ac* ‘grass,’ *el* ‘burn,’ *ich* ‘in, within,’ *ol* ‘heart, will, energy, spirit,’ and *uk* ‘drink’). Roots ending in glottal stops were written as CVV because terminal glottal stops were signalled by doubling the medial vowel (as in *haa* ‘water,’ *hee* ‘egg,’ *cii* or *cij* ‘sweet,’ *čhoo* ‘rat, mouse,’ and *tuu* ‘stinky’). Roots ending in “h” were written as CV because root-final laryngeal “h” was marked by Ø (as in *ba* ‘self,’ *le* ‘lasso,’ *ci* ‘henequen,’ *to* ‘after,’ or *ku* ‘deity’). Thus, although the two laryngeal consonants were not marked by unique symbols, it was possible to distinguish them from each other in both initial and final position by contrasting hVC with VC (as in *hol* ‘hole’ versus *ol* ‘heart, will, energy, spirit’) and hV with hVV (as in *he* ‘here’ versus *hee* ‘egg’).

The orthography did not distinguish between initial velar and laryngeal /h/; both were represented by the symbol “h” (*hul* [xul] ‘similar’ versus *hul* [hul] ‘arrive’). However, all words beginning with velar /h/ are grouped together in the *Calepino de Motul*, followed by all words beginning with laryngeal /h/. In final position, velar /h/ is represented by “h” and laryngeal /h/ by “Ø” (*lah* ‘all’ versus *la* ‘yes’). The same is true in medial position (*čihan* ‘born’ versus *čian* ‘enchantment’).

Some examples of the two types of roots appear in (1) and (2) below:

(1)	<u>CVC root</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	ah	ʔax	wake up
	buul	b’úʔul	beans
	ci	kih	henequen
	chac	čak	red, pink, orange
	hun	xun	one
	huun	húʔun	letter, paper

kin	k'in	day, sun
kuch	k'uč	arrive
lik	liik'	arise
maa	maʔ	no, not
tal	tàal	come
t̃han	t'àan	word, language
uuy	ʔúʔuy	feel, hear

(2)	<u>CVCVC root</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	ahau	ʔaxaw	lord, ruler
	keken	k'éek'en	pig
	otoch	ʔotoč	home
	pixan	p̃išan	soul
	tepal	tèepal	abundance
	l̃imin	l̃iimin	horse
	uinic	w̃inik	human
	ulum	ʔúulum	turkey

1.2. CO-OCCURRENCE RESTRICTIONS. All the consonants in Colonial Yucatec can begin and end syllables (McQuown 1967:209–229). The following general constraints operate on native CVC roots, restricting the consonants that can co-occur in initial and final position:¹

1. If the first consonant in such a syllable is a glottalized stop or affricate, its plain counterpart cannot appear at the end of that syllable, and vice versa (*k'__k, *k__k').
2. Furthermore, there cannot be two voiceless ejectives in the same root, unless they are identical in every respect (e.g., *k'__t', *t'__k').
3. Affricates also exemplify a principle of consonant harmony, a syllable-conditioned process that prevents them from co-occurring in the same syllable if they do not share the same point of articulation (*č__č', *č'__č', *č'__č', *č'__č', *č__č', *č__č', *č'__č', *č'__č').
4. The one and only voiced ejective (b') can co-occur with initial [p] and with any other stop or approximant with which it does not share the same point of articulation (*b'__p, *b'__p', *b'__w, *p'__b', *w__b').

The same restrictions apply to disyllabic roots, except that there is one attested violation of Rule 1 in Colonial (and Modern) Yucatec, namely that the surname Koyoc (phonetic [k'oyok]) contains both plain and glottalized k.

1.3. VOWEL GRADES. The vowel in monosyllabic roots could be short, long, or rearticulated. The rearticulation results from the infixing of a glottal stop in the root, which is separated from the final consonant by a copy of the root vowel. In the Calepino de Motul, compiled during the second half of the sixteenth century, monosyllabic roots containing short vowels were represented as CVC. So, also, were many monosyllabic roots with complex vowels (either long or rearticulated). Complex vowels were sometimes doubled (e.g., paal 'child'; cuuc 'elbow length') and/or accented (e.g., ác 'turtle, tortoise'; hóomol 'sink, subside'), indicating that they were long or rearticulated and stressed. These clues to pronunciation were more frequent in representing disyllabic stems, usually in situations of semantic or grammatical ambiguity. They are discussed at length in **2.3.2**.

1.4. AFFIXES. Inflectional and derivational processes are signalled by prefixing or suffixing grammatical morphemes with the following shapes to the root: C, CV, V, VC, VCC, and CVC.

1.4.1. PREFIXES. The most common prefixes in Colonial Yucatec are the clitic pronouns:

(3)	<u>Pronoun</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	in ~ inu	(?)in ~ (?)iŋw	I, my
	a ~ au	(?)a ~ (?)aw	you, your
	u ~ uy	(?)u ~ (?)uy	he, she, it; his, her, its
	c ~ ca	k ~ ka	we, our

In the prefixes that are represented as V (a and u), VC (au and uy), and VCC (iŋu) in the Colonial orthography, the glottal stop appears only when the prefix is in initial position. The other syllable shapes, C (c) and CV (ca), can occur in initial position without modification.

Two other prefixes, ah (phonetic [ʔax]) and ix (phonetic [ʔiʃ]), have a variety of functions. In agentive expressions, ah often refers to men and ix to women, but ah can also have a broader agentive meaning, including roles monopolized by women, in its range (e.g., ah çacal ‘weaver’). Both ah and ix appear in botanical and faunal names, where gender is not an issue. They seem to function more generally as a kind of noun classifier (but see Lois 1998). Some examples of their multiple uses appear in (4) and (5) below:

(4)	<u>Agentive</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	ah cah	ʔax kàax	neighbor
	ah canan	ʔax kanàan	guardian
	ah cay	ʔax kay	fisherman
	ah col	ʔax kòol	farmer
	ah çhibal	ʔax čʔibʔal	person of noble lineage
	ah hul	ʔax hùul	archer
	ah kin	ʔax kʔiin	priest
	ah max	ʔax màaš	wild chilli pepper
	ah mis	ʔax miis	cat
	ah ohel	ʔax ʔoxel	witness
	ah pax	ʔax pàaš	musician
	ah çacal	ʔax sakal	weaver (female)
	ah tepal	ʔax tèepal	lord, sovereign
	ah tok	ʔax tòokʔ	bloodletter
	ah ʔab can	ʔax ʔáabʔ-kàan	rattlesnake
	ah çac	ʔax ʔʔàak	doctor, surgeon
	ah uaay	ʔax wáay	witch

(5)	<u>Agentive</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	ix ahau	ʔiʃ ʔahaw	queen
	ix balche	ʔiʃ bʔáal-čeʔ	<i>Lonchocarpus longistylis</i> Pittier
	ix al	ʔiʃ ʔàal	woman lately delivered
	ix çhup	ʔiʃ čʔup	woman
	ix kan tun bub	ʔiʃ kʔaan-tun-bʔúubʔ	<i>Melampodium divaricatum</i> (L. Rich.) DC
	ix kokob	ʔiʃ kʔóokʔobʔ	a type of snake
	ix mehen	ʔiʃ mèehen	man’s daughter; small
	ix nuc	ʔiʃ nùuk	old woman of more than 50 years

1.4.2. SUFFIXES. There are more suffixes than prefixes in Colonial Yucatec, which have a variety of shapes and functions:

(6)	<u>Affix</u>	<u>Phonetic spelling</u>	<u>Gloss</u>
	ab	ab'	passive
	ah	ax	transitive perfective
	ac	ak	derived intransitive subjunctive
	al	al	ownership possession
	an	áʔan	participial
	b	b'	passive
	be	b'eʔ	peripheral sensory
	ben	b'éʔen	potential
	bil	b'il	future participial
	ɣil	ɣil	reverential
	ci	kih	affect adjective
	cin	kíin	causative
	cun	kúun	causative
	ch	č	inchoative
	e	eʔ	topical enclitic
	ech	eč	second person singular object of transitives or subject of statives and completive intransitives
	e	eh	transitive imperative
	el	el	inalienable possession
	en	en	first person singular object of transitives or subject of statives and completive intransitives
	es	es	causative
	ex	éʔeš	second person plural object of transitives or subject of statives and perfective intransitives
	h	h	inchoative
	i	ih	intransitive perfective
	ic	ik	transitive imperfective
	il	il	possessive
	ili	iliʔ	yet, still
	ina	ina	even
	k	k'	celeritive
	l	l	positional
	la	la	proximal
	lo	lo	distal
	m	m	present perfect and affect
	n	n	antipassive
	nac	nak	affect adjective
	ob	óʔob'	third person plural object of transitives, subject of intransitives and statives, and plural of nouns
	oon	óʔon	first person plural object of transitives and subject of intransitives and statives
	p	p	agentless passive

s	s	causative
t	t	transitivizer
tal	tal	inchoative and positional imperfective
yah	yah	frequentative and nominal
Vb	Vb'	root transitive future and instrumental
Vc	Vk	intransitive subjunctive
VI	VI	intransitive imperfective and participial

The shapes represented by these suffixes include C (b, ch, k, l, m, n, p, s, t), CV (ci, la, lo), VC (ab, ah, ak, al, ech, el, en, ic, il), CVC (bal, cin, cun, nac, tal, yah), VCV (ili, ina).

2. PHONOLOGICAL PROCESSES

2.1. STEMS. In looking at phonology, I will consider stems, which are composed of roots and affixes. The simplest stem consists of a single root, usually a noun, adjective, or particle. More complex stems are composed of one or more roots or affixes. Because Colonial Yucatec is an agglutinating language, the word is a less salient unit of analysis than the stem.

2.2. CONSONANTAL PROCESSES. The limitation of roots to CVC and CVCVC shapes means that they contain no consonant clusters and that consonant clusters occur only across morpheme boundaries, either when affixes are attached to roots or when roots are concatenated with each other. The resulting CC clusters are problematical in Colonial Yucatec, and the phonological processes of consonant deletion, debuccalization, and vowel epenthesis are invoked to modify or eliminate them.

2.2.1. IDENTICAL-CONSONANT CLUSTERS. If two adjacent consonants are identical, the first consonant is either deleted or debuccalized (that is, the consonant is reduced to a laryngeal glottal or h).

2.2.1.1. SONORANT CLUSTERS. In Modern Yucatec, if the two adjacent consonants are both identical sonorants (glides, liquids, nasals, or laryngeals), the first of the two consonants is deleted (Orie and V. Bricker 2000:296). I have found evidence of such a pattern of deletion for one glide [y], one nasal [n], and the liquid [l] in Colonial Yucatec:

(7)	Input	Output	Gloss
	uay y-ok-ol [way y óok'-ol]	ua_ y-ok-ol [wa_ y óok'-ol]	here above
	tħa _n -n-ah-i [t'aa _n -n-ah-ih]	tħa_-n-ah-i [t'aa_-n-ax-ih]	he spoke
	can-a _l lae [káʔan-a _l laʔeʔ ?]	can-a_ lae [káʔan-a_ laʔeʔ ?]	above this

Because neither the glottal stop nor the final laryngeal "h" is represented in the Colonial orthography, it is not possible to determine whether the first of two identical adjacent laryngeal consonants is also deleted.

2.2.1.2. OBSTRUENT CLUSTERS. In Modern Yucatec, if the two adjacent consonants are identical and both are obstruents, then the first consonant can be modified in three ways. If it is an ejective, it changes to a glottal stop; if it is not an ejective, it becomes an [h] (Orie and V. Bricker 2000:296). The relevant data in Colonial Yucatec I have found are suggestive but not conclusive with respect to such clusters:

(8)	Input	Output	Gloss
	sac cab [sak kab']	sah cab [sax kab']	white earth
	taç cun [táʔak-kun]	ta_cun [táʔah-kun]	guard, protect
	eṭ tal-il [ʔéet tàal-il]	e_tal-il [ʔéeh tàal-il]	companion
	hech-ch-ah [heč-č-ax]	he_ch-ah [heh-č-ax]	become wide open
	paḵ keban [paḵ k'eb'an]	pa_ keban [paʔ k'eb'an]	fornicate
	x chup pal [š č'úp pàal]	x chū_ pal [š č'úu_ pal]	girl, young lady

First of all, in the sac_cab example, the first “c” (= phonetic [k]) is always replaced by the velar “h” (= phonetic [x]). Although there is still evidence of a phonological distinction between velar and laryngeal “h” in Modern Yucatec (Orie and V. Bricker 2000), only laryngeal “h” is manifested phonetically. Because velar and laryngeal “h” have collapsed together in Modern Yucatec, the first consonant in identical obstruent clusters always becomes [h].

On the other hand, the first “c” in the taç_cun example behaves differently. Instead of becoming [x], it disappears. I suspect that it is not written because it has been debuccalized to [h], for which there was no symbol in the orthography used for Colonial Yucatec. It conforms, in this respect, to the phonological treatment of stop clusters in Modern Yucatec. The third example, which also contains a stop cluster (eṭ tal-il), follows a similar pattern, deleting the first consonant and perhaps replacing it with laryngeal “h,” which was never recorded in root-final position in Colonial Yucatec.

The fourth example in (8) shows what happens when the two adjacent consonants are identical affricates. In this case, the first consonant disappears, whereas it would change to laryngeal “h” in Modern Yucatec. But laryngeal “h” is not represented orthographically in Colonial Yucatec. Therefore, it is not clear whether the he_ch-ah example represents consonant deletion or a change to laryngeal “h.” The orthographic rendition is as ambiguous in this respect as in the examples with “c” and “t” above.

In the fifth example, the two adjacent consonants are identical ejectives. Here, again, the first consonant in the cluster seems to disappear. In Modern Yucatec, the first ejective in such a cluster would be replaced by a glottal stop, which is the other laryngeal consonant for which there is no orthographic counterpart in the Colonial alphabet.

In the sixth example, the two adjacent consonants are identical voiceless bilabials. Here, as in Modern Yucatec, the first consonant disappears.

2.2.1.3. FRICATIVE CLUSTERS. The fricatives [s and š] behave like sonorants in Modern Yucatec; the first consonant is always deleted in such clusters. The same pattern of deletion can be detected in Colonial Yucatec:

(9)	Input	Output	Gloss
	sus_s-ab-ac [súus_s-ab'-ak]	su_-s-ab-ac [súu_-s-ab'-ak]	it may be peeled
	iḵ xan [iš šan]	i_xan [i_ šan]	and also

2.2.2. OTHER CONSONANT CLUSTERS. When affixation brings non-identical consonants together, one of them is usually deleted. If one of the consonants is a laryngeal, either [ʔ] or [h], it is the one deleted. If, on the other hand, neither consonant is a laryngeal, then the processes are different for prefixes and suffixes. In general, the consonant in the prefix is more susceptible to deletion than the initial consonant in the root (Orie and V. Bricker 2000:292–293), whereas the final consonant in the root is more likely to be deleted than the consonant in the suffix.

2.2.2.1. PREFIXES. The examples in (10) show what happens when the third person possessive clitic *uy* is prefixed to non-laryngeal initial nouns:

(10)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	uy-bel [uy-b'èel]	u-bel [u-b'èel]	his road
	uy-cuch [uy-kùuč]	u-cuch [u-kùuč]	his burden
	uy-hahil [uy-xàaxil]	u-hahil [u-xàaxil]	his truth
	uy-kaba [uy-k'àab'aʔ]	u-kaba [u-k'àab'aʔ]	his name
	uy-luumil [uy-lúʔumil]	u-lumil [u-lúʔumil]	his land
	uy-mehen [uy-mèehen]	u-mehen [u-mèehen]	his son
	uy-naa [uy-naʔ]	u-naa [u-naʔ]	his mother
	uy-pacat [uy-pàakat]	u-pacat [u-pàakat]	his sight, eyes
	uy-pop [uy-póop]	u-pop [u-póop]	his mat
	uy-tʰan [uy-t'àan]	u-tʰan [u-t'àan]	his word
	uy-yum [uy-yùum]	u-yum [u-yùum]	his father

Note that, in every case, it is the glide in the prefix that is deleted, not the initial consonant in the root. On the other hand, if the initial consonant of the root is a laryngeal, either [ʔ] or [h], then the laryngeal, rather than [y], is the one that is deleted:

(11)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	uy-ahau [uy-ʔahaw]	uy-ahau [uy-ahaw]	his ruler
	uy-auat [uy-ʔawat]	uy-auat [uy-awat]	his shout
	uy-ex [uy-ʔèeš]	uy-ex [uy-èeš]	his pants
	uy-haal [uy-háʔal]	uy-aal [uy-áʔal]	its water
	uy-heel [uy-héʔel]	uy-eel [uy-éʔel]	her egg
	uy-hunil [uy-húʔunil]	uy-unil [uy-úʔunil]	his book
	uy-it [uy-ʔiit]	uy-it [uy-iit]	his anus
	uy-oc [uy-ʔòok]	uy-oc [uy-òok]	his foot
	uy-ol [uy-ʔóol]	uy-ol [uy-óol]	his heart
	uy-otoch [uy-ʔotoč]	uy-otoch [uy-otoč]	his home

In other words, laryngeal consonants at the beginning of roots are weaker and therefore more susceptible to deletion when preceded by another consonant.

The same thing happens when laryngeal-initial roots are preceded by the first- and second-person singular clitics, *inu* (phonetic [inw]) and *au* (phonetic [aw]). In the first case, the cluster consists of three consonants: [n], [w], and either [ʔ] or [h]. Laryngeal deletion resolves only part of the problem, reducing the cluster from three to two consonants ([n] and [w]). In Colonial Yucatec, both the initial vowel and consonant in [inw] could also be deleted, leaving [w] to carry the first-person meaning:

(12)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	inu-abil [inw-ʔáab'il]	u-abil [w-áab'il]	my grandchild
	inu-alic [inw-ʔáʔalik]	u-alic [w-áʔalik]	I say it
	inu-icnal [inw-ʔiknal]	u-icnal [w-iknal]	with me
	inu-icin [inw-ʔiç'in]	u-icin [w-iç'in]	my younger sibling

inu-ol [inw-ʔóol]	u-ol [w-óol]	my heart
inu-olah [inw-ʔóolax]	u-olah [w-óolax]	I want
inu-otoch [inw-ʔotoč]	u-otoch [w-otoč]	my house

Modern Yucatec does not permit the deletion of [in] to resolve such consonant clusters. Instead, the [n] assimilates to the following labiovelar, yielding [inw] before laryngeal-initial roots (see 2.2.2.2.5. below).

The second-person prefix, au (phonetic [aw]), behaves exactly like the third-person prefix, uy (phonetic [uy]) before laryngeal-initial roots in Colonial Yucatec (compare [13] with [11]):

(13)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	au-ex [aw-ʔèeš]	au-ex [aw-èeš]	your pants
	au-haabil [aw-háʔab'il]	au-aabil [aw-áʔab'il]	your age
	au-hula [aw-húʔulaʔ]	au-ula [aw-úʔulaʔ]	your visitor
	au-hulel [aw-húʔulel]	au-ulel [aw-úʔulel]	you arrive
	au-alic [aw-áʔalik]	au-alic [aw-áʔalik]	you say it
	au-icnal [aw-ʔiknal]	au-icnal [aw-iknal]	with you
	au-ilic [aw-ʔilik]	au-ilic [aw-ilik]	you see him
	au-ohel [aw-ʔoxel]	au-ohel [aw-ohel]	you know it
	au-ol [aw-ʔóol]	au-ol [aw-óol]	your heart
	au-uy [aw-ʔúʔuy]	au-uy [aw-úʔuy]	you hear it

The laryngeal is deleted whether the antecedent glide is [w] or [y].

Note that inu and au also behave like uy before non-laryngeal initial consonants (compare [14] and [15] with [10]):

(14)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	inu-cahal [inw-kàaxal]	in-cahal [in-kàaxal]	my town
	inu-col [inw-kòol]	in-col [in-kòol]	my cornfield
	inu-kaba [inw-k'àab'aʔ]	in-kaba [in-k'àab'aʔ]	my name
	inu-kax [inw-k'áaš]	in-kax [in-k'áaš]	my forest
	inu-luum [inw-lúʔum]	in-luum [in-lúʔum]	my land
	inu-matan [inw-máatan]	in-matan [in-máatan]	my gift
	inu-mejen [inw-mèexen]	in-mejen [in-mèexen]	my son
	inu-pixan [inw-piışan]	in-pixan [in-piışan]	my soul
	inu-tʰan [inw-t'áan]	in-tʰan [in-t'áan]	my word
	inu-ɔib [inw-ç'iibʔ]	in-ɔib [in-ç'iibʔ]	my writing
	inu-yum [inw-yùum]	in-yum [in-yùum]	my father

(15)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	au-ba [aw-b'ah]	a-ba [a-b'ah]	yourself
	au-botic [aw-b'óʔotik]	a-botic [a-b'óʔotik]	you pay it
	au-cuxtal [aw-kuštal]	a-kuxtal [a-kuštal]	your life
	au-chi [aw-çiʔ]	a-chi [a-çiʔ]	your mouth
	au-kab [aw-k'abʔ]	a-kab [a-k'abʔ]	your hand
	au-kat [aw-k'áat]	a-kat [a-k'áat]	you want it
	au-kuchul [aw-k'učul]	a-kuchul [a-k'učul]	you arrive

au-lakob [aw-láak'ó?ob']	a-lakob [a-láak'ó?ob']	your relatives
au-mehen [aw-mèexen]	a-mehen [a-mèexen]	your son
au-takin [aw-tàak'in]	a-takin [a-tàak'in]	your money
au-tʰan [aw-t'ʰaan]	a-tʰan [a-t'ʰaan]	your word
au-yum [aw-yùum]	a-yum [a-yùum]	your father

In both sets of examples, the glide in the prefix is deleted, not the initial consonant of the root, contrasting in this respect with the laryngeal-initial roots.

The first-person plural clitic pronoun is *c* (phonetic [k]). Because all roots and stems must begin with consonants, it, too, yields consonant clusters when followed by roots. Once again, the phonological processes for resolving such clusters are different for laryngeal and non-laryngeal initial roots. If the root-initial consonant is not a laryngeal, then an epenthetic vowel [a] is inserted between the [k] and the following consonant:

(16)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	c-botic [k-b'ó?otik]	ca-botik [ka-b'ó?otik]	we pay it
	c-cuxtal [k-kuʃtal]	ca-cuxtal [ka-kuʃtal]	our lives
	c-mehenob [k-mèehenó?ob']	ca-mehenob [ka-mèehenó?ob']	our sons
	c-naa [k-naʔ]	ca-naa [ka-naʔ]	our mother
	c-patan [k-patan]	ca-patan [ka-patan]	our tribute
	c-pixan [k-piışan]	ca-pixan [ka-piışan]	our souls
	c-ʔolic [k-ʔolik]	ca-ʔolic [ka-ʔolik]	we explain it
	c-yum [k-yùum]	ca-yum [ka-yùum]	our father

Modern Yucatec does not use [a]-epenthesis for separating the first-person plural clitic pronoun from the consonant that follows it. Rather, it inserts a schwa [ə] between the [k] and the adjacent consonant. Although [ə] has been attested as a contrastive vowel in the other Yucatecan languages (Lacandón, Itsaj, and Mopán) and has been reconstructed as the sixth vowel in Proto-Yucatecan (Campbell 2000:345; Fisher 1973:110; Justeson 1986:6–7), it does not have phonemic status in Modern Yucatec, and there is only indirect evidence for its existence in Colonial Yucatec (see 2.3.3. below).

In the absence of a symbol for schwa in the Colonial orthography, the scribe could have selected a as an alternative (the most common way of representing schwa in Colonial texts [see 2.3.3. below]). However, a was not available for this purpose because it served as the epenthetic vowel [a] before non-laryngeal initial roots (see [16] above). Instead, the scribe represented the first-person plural clitic pronoun before glottal-stop initial roots by *c* alone, as in the second column of (17), thereby maintaining an orthographic distinction between the two forms of the pronoun:

(17)	<u>Phonetic Input</u>	<u>Colonial Spelling</u>	<u>Aberrant Spelling</u>	<u>Gloss</u>
	k-ʔohel	c-ohel	k ohel [k'-ohel]	we know it
	k-ʔilah	c-ilah	k ilah [k'-ilah]	we saw it
	k-ʔáʔalik	c-alic	k alic [k'-áʔalik]	we say it

And although the initial glottal stop was never represented explicitly, it can be inferred from examples of *c* becoming *k* (the velar ejective) in the same contexts (as shown in the third column of [17] above). The same process occasionally occurs in Modern Yucatec, but the more common pattern is for a schwa to be inserted between the prefix and the glottal stop (Orie and V. Bricker 2000:295).

Another kind of consonant cluster is produced when pronominal *c* or *ca* are preceded by *ti* (phonetic [tiʔ]). *ti* had two functions in Colonial Yucatec, representing the general preposition meaning ‘in, at, on, to, from,’ as well as serving as the completive aspect clitic with perfective verb stems.

Although the glottal stop at the end of [tiʔ] was usually deleted when it was followed by a consonant-initial prefix or root, this was only rarely the case when followed by the first-person plural clitic [ka]. Rather, [tiʔ ka] normally became [tak]. Perhaps on analogy with what happened when [tiʔ] was followed by the VC pronouns [aw] and [uy] (as well as the VCC pronoun [inw]), where the [i] in [tiʔ] assimilated to the vowel in the pronoun (e.g., [tiʔ u] became [tu], and [tiʔ a] became [ta]) (see 2.3.1. below), both the vowel and the glottal stop in [tiʔ] were deleted before [ka], and [a] metathesized with [k], yielding [tak]:

(18)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	ti ca-kamah [tiʔ ka-k'amax]	tac-kamah [tak-k'amax]	we received it
	ti ca-lacal [tiʔ ka-láakal]	tac-lacal [tak-láakal]	all of us
	ti ca-menel [tiʔ ka-mèenel]	tac-menel [tak-mèenel]	because of us
	ti ca-pixan [tiʔ ka-piışan]	tac-pixan [tak-piışan]	in our souls
	ti ca-ɔah [tiʔ ka-ʔ'áax]	tac-ɔah [tak-ʔ'áax]	we gave it
	ti ca-xotah [tiʔ ka-šotax]	tac-xotah [tak-šotax]	we cut it

Thus, having reduced [tiʔ ka] to [tka], the strategy chosen was to metathesize the vowel with the second consonant, rather than inserting an epenthetic vowel between the [t] and the [k]. For reasons explained in Chapter 4, the metathesized form of the first person plural clitic dropped out of use during the second half of the eighteenth century. However, it survives today in Lacandón as [ək], the form of the pronoun used with non-laryngeal initial roots (Bruce 1968:48).

[tak] can also be attested before laryngeal-initial roots:

(19)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	ti c-alah [tiʔ k-ʔáʔalax]	tac-alah [tak-ʔáʔalax]	we said it
	ti c-etsah [tiʔ k-ʔéʔetsax]	tac-etsah [tak-ʔéʔetsax]	we showed it
	ti c-ilah [tiʔ k-ʔilax]	tac-ilah [tak-ʔilax]	we saw him

Because the prefix in these examples is [k] rather than [ka], the process is one of vowel epenthesis, not metathesis.

2.2.2.2. SUFFIXES. The consonant clusters produced by suffixation are resolved by several phonological processes: debuccalization, deletion, assimilation, metathesis, and epenthesis.

2.2.2.2.1. DEBUCCALIZATION. In Modern Yucatec, the ejectives [bʔ], [ʔʔ], and [kʔ] are often debuccalized when they are followed by the causative suffix [s]:

(20)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	hóok'-s	hóʔo-s	remove
	líik'-s	líʔi-s	raise
	lúub'-s	lúʔu-s	fell
	luk'-s	lúʔu-s	remove
	púuʔ'-s	púʔu-s	cause to flee

In these examples, [b'], [k'], and [ɟ'] have been reduced to [ʔ], yielding the consonant cluster [ʔs]. This cluster is then eliminated by inserting a copy of the root vowel between [ʔ] and [s].

My Colonial sources contain examples of two causative transitive verbs that seem to behave in the same way, one of which is listed in (20) above:

(21)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	hok-s [hók'-s]	ho_-s [hóʔo-s]	remove
	nab-s [nab'-s ʔ]	na_-s [náʔa-s ʔ]	anoint, varnish, smear

The ejectives that appear at the end of hok and nab may have been replaced by a glottal stop, which of course was never represented in the Colonial orthography.

Debuccalization can also occur when the suffix rather than the final consonant is an ejective. In roots ending in non-laryngeal consonants, the passive stem is formed by suffixing -b (= phonetic [b']) to the root. In Modern Yucatec, the resultant cluster is modified, first by metathesizing [b'] with the root-final consonant, then by debuccalizing the ejective to [ʔ], and finally by separating the two consonants by inserting a copy of the root vowel between them:

(22)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	b'on-b'	b'óʔon	be painted
	ɟik-b'	ɟíʔik	be respected, obeyed
	kuč-b'	kúʔuč	be carried
	mol-b'	móʔol	be gathered
	p'at-b'	p'áʔat	be left, abandoned
	sop'-b'	sóʔop'	be sold cheaply
	šel-b'	šéʔel	be opened
	tak'-b'	táʔak'	be stuck
	wuɟ'-b'	wúʔuɟ'	be folded, bent

The following examples suggest that the same processes were at work in Colonial Yucatec:

(23)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	kal-b [k'al-b']	kaal [k'áʔal]	be closed, covered, imprisoned
	mol-b [mol-b']	mool [móʔol]	be gathered
	pot-b [pot-b']	poot [póʔot]	be perforated
	ɟic-b [ɟik-b']	ɟijc [ɟíʔik]	be respected, obeyed
	uk-b [ʔuk'-b']	uuk [ʔúʔuk']	be drunk

If, on the other hand, the final consonant of the root was a laryngeal, then the suffix was not debuccalized. Instead, the laryngeal was deleted, and the ejective remained unchanged:

(24)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	chii-b [čiʔ-b']	chiib [číʔib']	be bitten
	choo-b [čoʔ-b']	choob [čóʔob']	be cleaned
	čhaa-b [č'aʔ-b']	čhaab [č'áʔab']	be taken, seized
	le-b [leh-b']	leeb [léʔeb']	be lassoed

paa-b [paʔ-bʼ]	paab [páʔabʼ]	be broken
too-b [toʔ-bʼ]	toob [tóʔobʼ]	be wrapped
ɔa-b [ʔʰah-bʼ]	ɔaab [ʔʰáʔabʼ]	be given
xe-b [šeh-bʼ]	xeeb [šéʔebʼ]	be vomited
zi-b [sih-bʼ]	ziib [síʔibʼ]	be presented

The contrast between the treatment of laryngeal-final roots and roots ending in other consonants implies that laryngeals are weaker than other consonants (see **2.3.1.** below).

2.2.2.2. VOWEL INSERTION. The passive suffix can also be attached to derived transitive stems, which already end in two consonants, the one terminating the root and the derivational suffix, either -s or -t. The addition of -b produces a triconsonantal cluster. The solution here was to insert a vowel—always [a]—between the second and the third suffix:

(25)	Input	Output	Gloss
	cims-b [kíims-bʼ]	cins- <u>a</u> b [kíins- <u>a</u> bʼ]	be killed
	hoks-b [hóokʰs-bʼ]	hoks- <u>a</u> b [hóokʰs- <u>a</u> bʼ]	be removed
	mans-b [máans-bʼ]	mans- <u>a</u> b [máans- <u>a</u> bʼ]	be transferred
	ocs-b [ʔòoks-bʼ]	ocs- <u>a</u> b [ʔòoks- <u>a</u> bʼ]	be inserted
	sats-b [sáʔats-bʼ]	sats- <u>a</u> b [sáʔats- <u>a</u> bʼ]	be lost
	sihs-b [síihs-bʼ]	sihs- <u>a</u> b [síihs- <u>a</u> bʼ]	be engendered
	tals-b [tàals-bʼ]	tals- <u>a</u> b [tàals- <u>a</u> bʼ]	be brought
(26)	Input	Output	Gloss
	hant-b [hàant-bʼ]	hant- <u>a</u> b [hàant- <u>a</u> bʼ]	be eaten
	kakt-b [kʰáakʰt-bʼ]	kakt- <u>a</u> b [kʰáakʰt- <u>a</u> bʼ]	be roasted
	kult-b [kʰult-bʼ]	kult- <u>a</u> b [kʰult- <u>a</u> bʼ]	be worshipped
	lacht-b [láʔačt-bʼ]	lacht- <u>a</u> b [láʔačt- <u>a</u> bʼ]	be scratched lightly
	meyaht-b [meyaht-bʼ]	meyaht- <u>a</u> b [meyaht- <u>a</u> bʼ]	be served
	mist-b [míist-bʼ]	mist- <u>a</u> b [míist- <u>a</u> bʼ]	be swept
	ɔibt-b [ʔʰíibʰt-bʼ]	ɔibt- <u>a</u> b [ʔʰíibʰt- <u>a</u> bʼ]	be written
	tumt-b [túumt-bʼ]	tumt- <u>a</u> b [túumt- <u>a</u> bʼ]	be tested

Other phonological processes, such as debuccalization (see **2.2.2.2.1.** above) and liquid-deletion (see **2.2.2.2.3.** below) could then be applied to modify the biconsonantal cluster that remained.

2.2.2.2.3. LIQUID DELETION. In root- and suffix-final position, [l] is frequently deleted when it is followed by another consonant:

(27)	Input	Output	Gloss
	colel-bil [kóʔolel-bʰil]	cole_-bil [kóʔole_-bʰil]	lady
	ho can [xo kan ʔ]	ho_ can [xo_ kan ʔ]	warrior
	ku che [kʰu čeʔ]	ku_ che [kʰu_ čeʔ]	cedar
	pom-o che [pom-o čeʔ]	pom-o_ che [pom-o_ čeʔ]	<i>Jatropha gaumeri</i> Greenman
	ho ppe hab [hóʔoh pʰéel háʔabʼ]	ho ppe_ hab [hóʔoh pʰéel háʔabʼ]	five years

ci _l -mac ol [kí?i _l -mak ?óol]	ci _l -mac ol [kí?i _l -mak ?óol]	joy, happiness
ho _l -na [hòol _l -nah]	ho _l -na [hòol _l -nah]	door
ta _l -s-ic [tàal _l -s-ik]	ta _l -s-ic [tàal _l -s-ik]	bring it
be _l -t-ic [b'èe _l -t-ik]	be _l -t-ic [b'èe _l -t-ik]	do it
ol _l -t-il [ʔóol _l -t-il]	ol _l -t-il [ʔóol _l -t-il]	poor
ba _l -x [b'á?al _l -š]	ba _l -x [b'á?al _l -š]	what?

This suggests that [l] at the end of roots and suffixes is weaker than other consonants, since it can be deleted before virtually any other consonant, including stops (c, t), affricates (ch, tʃ), ejectives (b, pp), laryngeals (h), fricatives (s, x), and nasals (m, n).

The weakness of [l] in root- and suffix-final position is also evident in Modern Yucatec, even when [l] is not followed by another consonant. For example, the expression miš b'á?al 'nothing' is often realized as miš b'á?ah in many dialects today, and [l]-final suffixes such as -tal become [h]-final in the eastern dialects of the language: e.g., táan u saktal 'it is becoming white' → táan u saktah. Furthermore, it can be seen by looking at the history of [l] in the deictic enclitics, la (= phonetic [laʔ]) 'proximal' and lo (= phonetic [loʔ]) 'distal,' that initial [l] also weakened through time. It began to disappear during the late eighteenth century and is attested today only when it immediately follows an initial deictic ending in a laryngeal. In such cases, the laryngeal may be deleted (as in [toʔ loʔ] → [to_ loʔ] '[out] there'), or a copy of the vowel in the initial deictic may be inserted between the laryngeal and [l] (e.g., [heʔ laʔ] → [héʔe laʔ] 'here it is' (cf. 1.2.4.2. in Chapter 15). The deictic enclitics in Modern Yucatec are normally -aʔ and -oʔ.

2.2.2.2.4. INTERROGATIVES WITH -X. In Colonial Yucatec, certain nouns and particles can function as relative pronouns, including bal 'thing, what,' bic 'how,' mac 'person, who,' and tub 'where.' To each of these words, the interrogative x (= phonetic [š]) may be suffixed, converting them into interrogative pronouns. The consonant clusters produced by this suffix are frequently simplified by deleting the root-final consonant:

(28)	Input	Output	Gloss
	bahun-x [b'axun _l -š]	bahu _l -x [b'ahu _l -š]	how much?
	bal-x [b'á?al _l -š]	ba _l -x [b'á?a _l -š]	what?
	bic-x [b'ik _l -š]	bi _l -x [b'i _l -š]	how?
	mac-x [máak _l -š]	ma _l -x [máa _l -š]	who?
	tub-x [túʔub _l -š]	tu _l -x [túʔu _l -š]	where?

The input and output forms both existed in Colonial Yucatec. All traces of the input forms have disappeared in Modern Yucatec.

2.2.2.2.5. NASAL ASSIMILATION. In Modern Yucatec, roots with [m] as the final consonant become [n] before dental, alveolar, and palatal consonants and [ŋ] before velar and labiovelar consonants, whereas roots with [n] as the final consonant become [m] before bilabial stops and ejectives. The same kind of assimilation occurred in Colonial Yucatec:

(29)	Input	Output	Gloss
	cim-s-ic [kíim _l -s-ik]	cin-s-ic [kíin _l -s-ik]	kill him
	tum-t-ic [túum _l -t-ik]	tun-t-ic [túun _l -t-ik]	test it
	num-ya [núum _l -yah]	nun-ya [núun _l -yah]	misery
	cum-ku [kùum _l -k'uh]	cun-ku [kúun _l -k'uh]	kiln

can-bal [kàan-b'al]	cam-bal [kàam-b'al]	learn
chun-p-ah-al [čun-p-ax-al]	chum-p-ah-al [čum-p-ax-al]	begin
hun-ppel [hun p'éel]	hum-ppel [hum-p'éel]	one (thing)

The only direct evidence of [ŋ] as an allophone of [n] in the written sources occurs in an example of the first-person singular clitic pronoun before a glottal-stop initial stem, where it precedes the labiovelar consonant: *yngu almahmail* (phonetic *iŋw áʔalmamaxmayil*) 'I have reported it.'

On the other hand, when, as a result of suffixation, two unlike nasals formed a cluster, the first nasal was deleted:

(30)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	in matan-m-a	in mat__-m-a	I have donated it
	canan-m-a-il	cana_-m-a-il	having been protected
	u mektan-m-a	u mekta_-m-a	he has subjugated him

Note that, in the first case, both the first consonant in the cluster and the vowel immediately preceding it are deleted, creating a new consonant cluster that was apparently more acceptable than the cluster of unlike nasals. The output form is very common in Colonial documents.

2.3. VOCALIC PROCESSES. Because of the CVC and CVCVC structure of Maya roots, affixation and root concatenation did not produce vowel clusters in Colonial Yucatec. However, something very much like vowel hiatus occurred when laryngeal consonants were flanked by unlike vowels, triggering the phonological processes of vowel harmony and epenthesis.

2.3.1. THE SPECIAL STATUS OF LARYNGEALS. Olanike Orie and I have argued that laryngeals have a special status in Modern Yucatec that sets them apart from other consonants in the language (Orie and V. Bricker 2000). [ʔ] and [h] are placeless consonants, whereas the other consonants have place specification. This difference is manifested in their behavior when they follow the pronominal clitics *iŋw*, *aw*, and *uy*. The initial glottal stop and laryngeal [h] may be deleted after these clitics, whereas other consonants remain firm, and it is the glide in the clitic that deletes before them (compare [11], [15], and [16] with [12], [13], and [14] above). It also shows up in the differential treatment of laryngeals and other consonants in root-final position before the passivizing suffix *-b'*, where laryngeals are deleted but other consonants are not (compare [23] and [24] with [25]).

In Modern Yucatec, laryngeals serve as epenthetic consonants with Spanish loans, many of which begin and/or end with vowels. In order to maintain the principle that all roots and stems must begin and end in consonants, it is necessary to insert epenthetic consonants before vowel-initial and after vowel-final loans. The glottal stop is the consonant adopted for vowel-initial loans, and [h] appears after vowel-final loans:

(31)	<u>Spanish</u>	<u>Yucatec Adaptation</u>	<u>Gloss</u>
	arroz	ʔáaros	*háaros rice
	anita	ʔàan	*hàan Anne
	estevan	ʔèes	*hèes Steven
	ojo	ʔòohoh	*hòohoʔ eye
	albahaca	ʔáalbahàakah	*háalbahàakaʔ basil [herb]
	banda	bàandah	*bàandaʔ neighborhood
	mamá	mamah	*mamaʔ mother

mesa	mèesah	*mèesaʔ	table
tía	tyàah	*tyàaʔ	aunt
pato	pàatoh	*pàatoʔ	duck

Another special characteristic of laryngeals is that they can only be flanked by identical vowels, whereas other consonants can be flanked by either identical or non-identical vowels:

(32)	Identical		Non-identical	
	<u>V root</u>	<u>Gloss</u>	<u>V root</u>	<u>Gloss</u>
	k'upus	mange	nàapul	direct
	ʔatan	wife	kitam	peccary
	šikin	ear	kóokay	firefly
	ʔab'al	plum	k'óob'en	kitchen
	pečééč	spindle	ʔíičam	husband
	k'ošol	mosquito	pišàan	soul
	síinik	ant	kunel	in vain
	k'amas	termite	homaʔ	gourd for corn seed
	ʔawat	shout	čowak	long
	k'eyem	posol	ʔáayin	alligator
	kalap	space, ravine	š tuliš	dragonfly

(33)	<u>Root</u>	<u>Gloss</u>
	wíʔit'	loincloth
	lúʔum	land
	héʔel	rest
	hóʔol	head, hair
	wáʔal	stand up
	č'uhuk	sweet
	mehen	small
	tohol	price, value
	mahan	borrowed

When root-final laryngeals are followed by -VC affixes whose vowel is unlike the vowel in the root, the laryngeal may be replaced by a glide, either [y] before front vowels or [w] before back vowels, or the vowel in the root assimilates to the vowel in the affix:

(34)	<u>Input</u>	<u>Output</u>	<u>Gloss</u>
	kin ǰ'ah-ik	kin ǰ'ayik	I give it
	kin šeh-ik	kin šeyik	I vomit it
	ǰ'ah-eh	ǰ'ayeh	give it!
	sih-eh	siyeh	present it!
	ǰ'ah-ob'	ǰ'awob'	give them!
	šeh-ob'	šewob'	vomit them!
	hàah in t'àan	hàay in t'àan	my word is true
	hàah u t'àan	hàaw t'àan	his word is true
	in tiʔal	in tiyal	mine

The Calepino de Motul lists *tiyal* as an alternative spelling of *tial* (Ciudad Real 1600?: fols. 226v, 375v), and a Tekanto notary used *ɔayic* as an alternative spelling of *ɔaic* in a series of testaments he recorded in 1750.

2.3.2. ACCENT AND PITCH. Modern Yucatec and the San Quintín dialect of Lacandon (Canger 1995) have a pitch accent system. They are languages that use phonemic tone but allow only long vowels to carry tone; neutral vowels do not carry tone. There are two tones: (1) high or rising and (2) low, level, or falling. Itsaj and Mopan do not have a pitch-accent system. They have only long vowels, short vowels, and rearticulated vowels. The question is whether Colonial Yucatec was more like Itsaj and Mopan or had already developed a pitch-accent system like that of Modern Yucatec and San Quintín Lacandon. Since the representation of tone is intrinsically tied to syllable structure and weight, the issue of whether tone was represented in Colonial Yucatec will be addressed by examining syllable representation. Based on syllable facts, a reconstructed history of tone will be proposed.

2.3.2.1. STRESS. I have previously described the stress pattern of Modern Yucatec as follows:

In words of more than one syllable, the syllable containing a long vowel is stressed. If the word has two long vowels, the vowel in the first syllable receives primary stress. If the word has no long vowel, the last syllable is stressed (V. Bricker et al. 1998:xiii).

The Calepino de Motul marks vowel length and stress whenever entries can be distinguished only in terms of these features. In such cases, the scribe(s) responsible for compiling the Calepino marked the complex vowel—either long or rearticulated—either by doubling it (i.e., representing the root as CVVC), or by placing an acute accent over the single vowel, or by both doubling and accenting the vowel. In addition, the notation “the accent on the first syllable” (*el acento en la primera sílaba*) frequently described the pronunciation of stems whose roots contained complex vowels; similarly, the notation “the accent on the last syllable” (*el acento en la última sílaba*) often described the pronunciation of stems whose roots contained short vowels. These notations are consistent with the stress pattern in Modern Yucatec, where heavy syllables containing long vowels or rearticulated vowels are the ones that are stressed, but stress falls on the last syllable of stems lacking heavy syllables.

Although not applied consistently to every syllable containing a long or rearticulated vowel, the double vowels and acute accents are distributed neither randomly nor haphazardly in the Calepino. They are highly patterned, an observation that is reinforced by the fact that the scribe(s) often took the trouble to specify in prose which syllable carried the accent.

It should be noted that the notations about accent specify the syllable that is stressed, but they say nothing about vowel length or rearticulation per se. Long vowels and rearticulation are most explicitly marked by vocalic doubling, a spelling practice that often characterizes the root syllable of disyllabic stems and only rarely the suffix in those stems. There is only one instance of a -VVI participial suffix in the Calepino de Motul (tookool ‘sharp [metal, stone]’), and, as shown below, the Modern reflex of the accented -VI suffix in participles is -VI. Therefore, it seems reasonable to interpret the accented vowel in participial stems as short.²

(35)	<u>Passive</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	cáchalbe	broken (large objects)	cachál	broken
	çijnil	be extended	çinil	extended, stretched out
	çúppul	be blocked (road)	çuppúl	dense (vegetation)
	tzícil	be obeyed	tzicíl	obedient

tziilil	be unravelled, shredded, torn	tzilíl	torn, shredded
tzútzul	be closed, filled up, obstructed	tzutzúl	closed, covered
ɔ́amal	be soaked, immersed	ɔ́amál	caked
ɔ́olol	be flayed, skinned, chafed	ɔ́olól	flayed, skinned, chafed
chúhul	be burned (skin)	chuhúl	burned, seared
chúyul	be sewn, embroidered	chuyul	sewn, embroidered
cháacal	be cut, chopped	čhaacál	cut, chopped
háaxal	be bored, drilled between the palms of the hands	haxál	bored (hole)
húulul	be shot, threaded (needle)	hulúl	speared, threaded
húpul	be inserted, encircled (gourds, hats)	hupúl	inserted
muucul	be buried, hidden, concealed	mucúl	secret, hidden
nuutzul	be joined, closed, blocked	nutzúl	joined, closed, blocked
núppul	be closed, covered, spliced	nuppúl	closed, covered, spliced
ppátal	be left, abandoned, forgotten, lost	ppatál	left, abandoned, forgotten, lost
tábal	be tied	tabál	tied; mended
tookol	be punctured, let (blood)	tookóol	sharp (metal, stone)
vúakal	be netted (cloth)	vuákál	netted
uátal	be broken, divided in half (long, hard object)	uatál	broken (long, hard object)
účhul	be narrowed, contracted (mouth of vase)	učhúl	narrowed, constricted
uécel	be spilled, scattered, shed	uecél	spilled, scattered, shed
xélel	be cut into bits, torn into pieces	xelél	cut into bits, torn into pieces
xéthel	be torn, broken apart	xethél	torn, broken apart
xóotol	be cut, sliced	xotól	cut

The Calepino de Motul contains numerous pairs of stems based on the same root that differ only in the length of the vowel in the first syllable. In (35), the stems on the left side of the page, whose roots are marked by double vowels and/or an acute accent, represent the passive voice of root transitives; with one exception, those on the right, whose roots contain short vowels, represent participles based on the corresponding transitive root. The two sets of stems have -VI suffixes (V echoes the root vowel); the vowels in the participial suffixes carry an acute accent, the ones in the passive suffixes do not, agreeing with the reflexes of passive stems based on transitive roots in Modern Yucatec, which contain a rearticulated vowel:

(36)	<u>Colonial</u>	<u>Gloss</u>	<u>Modern</u>	<u>Gloss</u>
	cáchal	be broken	káʔačal	be split, fractured
	čijnil	be extended (large objects)	sĩʔinil	be extended, stretched out
	čúppul	be blocked (road)	súʔup'ul	be fenced in with
	tzícil	be obeyed	čĩʔikil	be respected, obeyed
	tziilil	be unravelled, shredded, torn	čĩʔilil	be shredded
	tzútzul	be closed, filled up, obstructed'	čúʔučul	be closed, filled up, obstructed, scarred
	ɔ́amal	be soaked, immersed	č'áʔamal	be soaked, immersed

chúhul	be burned (skin)	čúʔuhul	be burned (skin)
chúyul	be sewn, embroidered	čúʔuyul	be sewn
čháacal	be cut, chopped	čáʔakal	be cut, axed
háaxal	be bored, drilled between the palms of the hands	háʔašal	be laid (rope), beaten (chocolate)
húulul	be shot, threaded (needle)	húʔulul	be focused, lighted; thrust, threaded
húpul	be inserted, encircled (gourds, hats)	húʔupul	be inserted
muucul	be buried, hidden, concealed	múʔukul	be buried
nuutzul	be joined, closed, blocked	núʔuʔul	be joined, closed, blocked
núppul	be closed, covered, spliced	núʔupʔul	be closed (mouth, lid)
ppátal	be left, abandoned, forgotten, lost	pʔáʔatal	be left, abandoned
tábal	be tied	táʔabal	be grafted, rooted
tookol	be punctured, let (blood)	tóʔokʔol	be punctured, bled
vúakal	be netted (cloth)	wáʔakʔal	be netted (hammock)
uátal	be broken, divided in half (long, hard object)	wáʔatal	be broken, divided in half
účul	be narrowed, contracted (mouth of vase)	ʔúʔučul	be dented
uécel	be spilled, scattered, shed	wéʔekel	be spilled, shed
xéʔhel	be torn, broken apart	šéʔetʔel	be torn, broken apart
xóotol	be cut, sliced	šóʔotol	be cut, sliced

There is no such agreement between the stress patterns of participles based on transitive roots in Colonial and Modern Yucatec:

(37)	<u>Colonial</u>	<u>Gloss</u>	<u>Modern</u>	<u>Gloss</u>
	cachál	broken	kàačal	split, fractured
	činil	extended, stretched out	siinil	extended, stretched out
	čuppúl	dense (vegetation)	sùupʔul	fenced
	tzicíl	obedient	č̣iikil	respected
	tzilíl	torn, shredded	č̣iilil	shredded
	tzutzúl	closed, covered	č̣ùuʔul	closed, filled up, obstructed, scarred
	ɔamál	caked	č̣ʔàamal	soaked, immersed
	chuhúl	burned, seared	č̣ùuhul	burned
	chuyul	sewn, embroidered	č̣ùuyul	sewn
	čhaacál	cut, chopped	č̣àakal	cut
	haxál	bored (hole)	hàašal	laid (strands of rope); beaten (chocolate)
	hulúl	speared, threaded	hùulul	focused, lighted, thrust, threaded
	hupúl	inserted	hùupul	inserted, sunk
	mucúl	secret, hidden	mùukul	buried

nutzúl	joined, closed, blocked	nùuǵul	joined, closed, blocked
nuppúl	closed, covered, spliced	nùup'ul	closed
ppatál	left, abandoned, forgotten, lost	p'àatal	left, abandoned
tabál	tied; mended	tàabal	grafted; rooted
tookóol	sharp (metal, stone)	tòok'ol	punctured
vuákal	netted	wàak'al	netted
uatál	broken (long, hard object)	wàatal	broken in half
uchúl	narrowed, constricted	?ùuč'ul	slumped
uecél	spilled, scattered, shed	wèekel	spilled
xethél	torn, broken apart	šèet'el	torn
xotól	cut	šòotol	cut, sliced

(37) shows that the first syllable in the Modern reflexes is heavy, containing a long vowel and low tone, contrasting in this respect with the first syllable of the Calepino participles, whose vowel was short and therefore unstressed. This is a significant difference between Colonial and Modern Yucatec, one that raises the question of whether Colonial Yucatec distinguished between high and low tone.

2.3.2.2. PITCH ACCENT. A strong piece of evidence for the presence of tones in Modern Yucatec has been the contrast between mediopassive and participial stems derived from transitive roots:

(38)	<u>Mediopassive</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	káačal	split slowly	kàačal	split, fractured
	síinil	stretch out, extend	sìinil	extended, stretched out
	súup'ul	block	sùup'ul	fenced
	ǵíilil	shred	ǵiilil	shredded
	ǵúuǵul	close, fill up, obstruct, scar	ǵùuǵul	closed, filled up, obstructed, scarred
	ǵ'áamal	soaked	ǵ'àamal	soaked, immersed
	čúuyul	get sewn	čùuyul	sewn
	č'áakal	cut	č'àakal	cut
	háašal	wipe, stroke, beat	hàašal	laid (strands of rope); beaten (chocolate)
	húulul	focus, light; thrust	hùulul	focused, lighted, thrust, threaded
	húupul	sink, invade	hùupul	inserted, sunk
	múukul	bury oneself	mùukul	buried
	núuǵul	block, close	nùuǵul	joined, closed, blocked
	núup'ul	close, finish	nùup'ul	closed
	p'áatal	remain, stay	p'àatal	left, abandoned
	táabal	graft, take root	tàabal	grafted; rooted
	tóok'ol	bleed	tòok'ol	punctured
	wáatal	part	wàatal	broken in half
	?úuč'ul	slump	?ùuč'ul	slumped
	wèekel	spill, shed	wèekel	spilled
	šèet'el	tear, break apart	šèet'el	torn
	šòotol	cut	šòotol	cut, sliced

(38) shows that the first syllable in mediopassive stems contains a long vowel with high or rising tone and that the first syllable in participial stems contains a long vowel with level or falling tone. Although not the only evidence of the existence of tones in Modern Yucatec, these minimal pairs (and many others like them) serve as strong, *prima facie* evidence for this distinction in the Modern language.

Unfortunately, there is no comparable dataset in Colonial Yucatec because, as the participial examples in (35) show, the first syllable in participial stems did not have a long vowel at that time (and therefore could not have had a low tone). Colonial Yucatec resembled Mopan in that respect, both of whose participial syllables contain short vowels (Hofling 2011):

(39)	<u>Colonial</u>	<u>Gloss</u>	<u>Mopan</u>	<u>Gloss</u>
	cachál	broken	kachal	broken
	tzilíl	torn, shredded	tzilil	torn
	chuyul	sewn, embroidered	chuyul	sewn
	hulúl	speared, threaded	hulul	threaded
	mucúl	secret, hidden	mukul	hidden, in hiding
	nuppúl	closed, covered, spliced	nup'ul	stacked
	ppatál	left, abandoned, forgotten, lost	p'atal	abandoned
	uecél	spilled, scattered, shed	wekel	scattered

The same is true of Itsaj, except that the vowel in the participial suffix is /a/, not a copy of the root vowel (Hofling and Tesucún 1997):

(40)	<u>Colonial</u>	<u>Gloss</u>	<u>Itsaj</u>	<u>Gloss</u>
	cachál	broken	kachal	broken
	çuppúl	dense (vegetation)	sup'al	overgrown
	tzilíl	torn, shredded	çilal	torn
	çamál	caked	tz'amal	sunk
	chuyul	sewn, embroidered	chuyal	sewn
	hupúl	inserted	hupal	inserted
	mucúl	secret, hidden	mukal	hidden
	nuppúl	closed, covered, spliced	nup'al	closed
	ppatál	left, abandoned, forgotten, lost	p'atal	remained, left
	uchúl	narrowed, constricted	uch'al	crushed
	uecél	spilled, scattered, shed	wekal	sprinkled
	xethél	torn, broken apart	xet'al	broken
	xotól	cut	xotal	cut

On the other hand, the Calepino assigns accents and/or double vowels to the first syllable in mediopassives, which corresponds to long vowel and high tone in Modern Yucatec:

(41)	<u>Colonial</u>	<u>Gloss</u>	<u>Modern</u>	<u>Gloss</u>
	çíppil	swell up, form welts, ripen	síip'il	increase, swell up
	cúcul	fall, drop; rot, decay	'úukul	squash, fall [from tree]
	chóoxol	fall like a beast of burden or when a person falls after stumbling	č'óošol	twist
	háatzal	divide, separate	háaçal	divide

háual	stop, cease	háawal	stop, cease
héekel	break (branches of trees)	héek'el	break
hóčhol	fall (cloth onto floor)	hóoč'ol	fall, faint, swoon
hóomol	sink (feet in earth), subside (earth)	hóomol	subside (earth)
húkul	become dislocated, disjointed (bone)	húk'ul	twist, sprain
húutul	fall down (leaves on trees), fall out (hair, feathers)	húutul	fall down
tijcil	unravel	tíikil	unravel
tómol	sink [in water, mud, hole]; step in pit, snare	tóomol	invade, trespass; sink
tóppol	open (flower, road)	tóop'ol	bud, hatch
uácal	pop out (board from wall), burst forth (pus in wound)	wáakal	swell, appear
xíjcil	crack, split, break apart	šíikil	crack, split, break apart
xíjtil	open (flowers, cotton bolls), crack, split	šíitil	open

In Mopan, as in Colonial and Modern Yucatec, the stem vowel in mediopassives is long (Hofling 2011):

(42)	<u>Colonial</u>	<u>Gloss</u>	<u>Mopan</u>	<u>Gloss</u>
	číppil	swell up, form welts, ripen	siip'il	swell
	háatzal	divide, separate	haatz'əl	divide
	héekel	break (branches of trees)	heek'el	split, break
	hóomol	sink (feet in earth), subside (earth)	hoomol	sink
	tóppol	open (flower, road)	toop'ol	split, hatch
	xíjtil	open (flowers, cotton bolls), crack, split	xiitil	sprout, open, blossom, loosen

In Itsaj, the stem vowel in mediopassives is short (Hofling and Tesucún 1997):

(43)	<u>Colonial</u>	<u>Gloss</u>	<u>Itsaj</u>	<u>Gloss</u>
	číppil	swell up, form welts, ripen	sip'il	swell
	ɔ́ucul	fall, drop; rot, decay	tz'ukul	rot
	háatzal	divide, separate	hatzəl	split, divide
	háual	stop, cease	hawəl	disappear, end
	héekel	break (branches of trees)	hek'el	split open
	hóomol	sink (feet in earth), subside (earth)	homol	collapse, cave in, get a hole
	húutul	fall down (leaves on trees), fall out (hair, feathers)	hutul	collapse
	tóppol	open (flower, road)	top'ol	hatch, be born, shatter
	uácal	pop out (board from wall), burst forth (pus in wound)	wakəl	bulge, swell
	xíjcil	crack, split, break apart	xikil	blister, erupt, explode

2.3.2.3. YUCATECAN TONOGENESIS. According to John Justeson (personal communication, 26 May 2010), an infixed /h/ is the most likely source of the long vowel with a high tone in mediopassives (see also Hiro-nymous 1982). When the infixed /h/ disappears, it can leave behind a long vowel and rising-falling pitch as the ghost of its earlier presence (Justeson 1986:34n1), which was apparently the case in the transition from Proto-Yucatec to Modern Yucatec. Alternatively, it can disappear without a trace (as in Itsaj), or only the long vowel is left behind (as in Mopan).

Because medial /h/ is not represented in the orthography of Colonial Yucatec, it is not clear whether the syllable in mediopassive stems whose vowel is doubled and/or accented contains an infixed /h/ or a long vowel. The acute accent in disyllabic stems indicates only that the syllable is heavy. The vocalic doubling is suggestive of vowel length, but not conclusive.

In a few other contexts, the Calepino de Motul does mention vowel length explicitly, implying that the infixed /h/ had already been replaced by a long vowel in the late sixteenth century. For example, folio 394r of the Calepino de Motul (Ciudad Real 1600?) contains the following set of entries:

- (44) **ppul.** golpe de açote o de campana.
ppuul. de dos silabas. cosa que esta descosida y libro desenquadrado.
ppul. una silaba larga. cantaro.

The first entry is simply glossed as ‘whiplash or striking of bell.’ The others contain an explanation of how the word is pronounced, followed by a gloss:

- (45) **ppuul.** ‘of two syllables. unstitched object and disbound book.’
ppul. ‘one long syllable. water jar.’

The last of these entries is of special interest because it specifies that the word in question consists of one long syllable, contrasting with the entry directly above it, which is described as having two syllables and with the first in the sequence, which presumably has one short syllable. The root of the entry with two syllables appears two pages earlier (Ciudad Real 1600?:fol. 392v) as:

- (46) **ppu.ah.ub.** descoser mantas: y deshazer o desencuadrarn libros.

Its gloss means ‘to unstitch cloths and undo or unbind books.’ (ah and ub represent the perfective and future suffixes of this verb.) The fact that the root is ppu rather than ppuu implies that it ended in h (phonetic [p’uh]), not a glottal stop, and that the phonetic value of the related participle, ppuul, was [p’uh-ul].

The reflexes of Colonial ppul ‘water jar’ in the currently spoken languages are p’uul in Modern Yucatec and Lacandon (V. Bricker et al. 1998:234; Canger 1995) and p’uul in Mopan and Itsaj (Hofling 2011:372; Hofling and Tesucún 1997:542). Kaufman and Justeson (2003:985) have reconstructed them back to *p’uhl. The fact that the entry is described as having “one long syllable” in the Calepino de Motul implies that the infixed /h/ had already been replaced by vowel length by the time it was elicited from a sixteenth-century speaker of Colonial Yucatec. Support for this inference appears in two of the example sentences containing this noun:

- (47) nóci y aalil in ppuul ‘my jar of water was overturned.’
 chupaán haa ti ppuul ‘the jar is full of water.’

The doubled vowel in both instances of ppuul agrees with the description of the word for water jar as consisting of “one long syllable.”

The Calepino de Motul also lists two transitive verb stems that contrast only in vowel length (Ciudad Real 1600?:fol. 378r):

- (48) **poc.ah.ob.** pronunciado breue. lavar fregando o fregar lavando assi como platos, escudillas, jarros y qualquier vasiya y loça ...
poc.ah.ob. pronunciado largo. cozer jarros y cantaros y otras vasijas y qualquier loça. Item calentar a la lumbré alguna cosa ponerla junto al fuego para que se asse o seque o enxugue ...

An English translation of the quoted Spanish glosses appears in (49):

- (49) **poc.ah.ob.** ‘pronounced short. to wash by scrubbing or to scrub by washing plates, bowls, pots, water jars and other vessels and any kind of crockery ...’
poc.ah.ob. ‘pronounced long. to heat jugs, water jars and other vessels or any kind of crockery. Furthermore, to heat something in a fire, place it next to the fire so that it roasts or dries out or shrivels ...’

The two head words are identical, but the first is “pronounced short” (*pronunciado breue*) and the second is “pronounced long” (*pronunciado largo*). (ah and ob represent the perfective and future suffixes of these verbs). The reflex of the “long” poc is póok ‘to toast, reheat over coals’ in Modern Yucatec (V. Bricker et al. 1998:219); the same verb means ‘to roast’ in San Quintín Lacandon (Canger 1995). There is no reflex of the “short” poc in Modern Yucatec, but it is a transitive root in San Quintín Lacandon, whose active stem is pak and means ‘to wash dishes’ (Canger 1995). Neither Itsaj nor Mopan has a reflex of “short” poc either, but they both have pook ‘to roast on coals’ (Itsaj) and ‘to roast’ (Mopan) (Hofling 2011:359; Hofling and Tesucún 1997:522).

Another set of examples in the Calepino marks the distinction between two verb stems by doubling the vowel in one of them, instead of marking the vowel in one of them as short and the other as long (Ciudad Real 1600?:fol. 424v):

- (50) **toc.ah.ob.** quitar tomar por fuerca, priuar arrebatar, robar y usurpar casas y cosas muebles.
tooc.ah.ob. quemar abrasar, y cosa quemada.

An English translation of the quoted Spanish glosses appears in (51):

- (51) **toc.ah.ob.** ‘to take away, take by force, deprive, snatch, steal and usurp houses and movable objects.’
tooc.ah.ob. ‘to burn, set on fire, and burned object.’

The reflex of toc in Modern Yucatec is tok ‘snatch away, defend’ (V. Bricker et al. 1998:279); its cognate in San Quintín Lacandon (tak) has the same meaning (Canger 1995). The reflex of tooc is tóok ‘burn’ in Modern Yucatec and San Quintín Lacandon (V. Bricker et al. 1998:279; Canger 1995). Itsaj has both tok ‘take away’ and took ‘burn’ (Hofling and Tesucún 1997:597, 601); Mopan has only tok ‘take away’ (Hofling 2011:409). Kaufman and Justeson (2003) do not list these forms in their reconstructed vocabulary, but the presence of tojclél (phonetic [tohk-l-el], glossed as ‘quemazón de monte, incendio’ (‘forest fire, conflagration’) in Chol

(Aulie and Aulie 1998:117), suggests that *tohk was the earlier form of took. Because root-medial /h/ is normally not represented in the Calepino, it is possible that the vocalic doubling in the second example represents a long vowel, rather than preconsonantal /h/.

The stems in (44), (48), and (50) whose medial vowels are labelled as “long” or doubled in the Calepino de Motul imply that preconsonantal /h/ had already disappeared, leaving high tone behind, because, according to Terrence Kaufman (personal communication, 13 June 2010), it is likely that CVhC acquires high tone first, followed by the conversion of /h/ to vowel length; alternatively, the changes could have occurred simultaneously.

With high tone already in place in the late sixteenth century, the stage was set for low tone to develop in the language, as the presence of both high and low tones in Modern Yucatec and the San Quintín dialect of Lacandon suggests must have happened. But where did low tone come from? It may be the remains of a consonant, which became phonologized as low tone. Or, because languages minimally have two tones—High and Low—it may have developed as the opposite tonal feature that allows the pitch space to be divided into an upper (H tone) and lower (L tone) register. One can clearly rule out the first explanation because unlike high-toned words, which had laryngeal /h/, there was no historical consonant present in words with low tones. The second possibility is more plausible because there is evidence of the development of low tone in common nouns with pre-existing vowel length after high tone appeared in Colonial Yucatec. A few common nouns whose vowels are doubled or accented in the Calepino correspond to nouns with low tone in Modern Yucatec:

(52)	<u>Colonial</u>	<u>Gloss</u>	<u>Modern</u>	<u>Gloss</u>
	ác	grass	ʔàak	grass
	baac	bone, horn (of deer, cow)	b'àak	bone
	baach	type of pheasant	b'àač	chachalaca <i>Ortalis vertula</i>
	baal	brother-in-law	b'àal	brother-in-law
	beel	road, occupation; condition; sin fault, mistreatment	b'èel	road, occupation
	ceeb	belch	kèeb'	belch
	ix coochol	large crickets	š kòočol	cricket
	yeeb	fog, dew	y'èeb'	fog, dew
	nooy	pith, kernel, flesh	nòoy	pith, kernel
	paal	young boy or girl	pàal	infant, child, minor
	toon	penis	tòn	penis

beel, whose primary meanings are ‘road, occupation, or condition,’ deserves special mention because the Calepino contains numerous examples of it in sentences, where it routinely appears with doubled vowels. So, also, does the transitive stem derived from it—beeltic ‘do, make, cause’ (b'èeltik in Modern Yucatec, b'etik in Itsaj)—, indicating a pattern consistent with a long vowel and low tone. The other examples provide additional evidence of the presence of nouns with long vowels in Colonial Yucatec that have cognates with low tone in Modern Yucatec. Furthermore, the grammatical classes with the largest number of low-tone stems in Modern Yucatec are antipassives and verbal nouns derived from root transitives and participles, of course. I have already shown that participles had not yet developed long vowels and low tone in Colonial Yucatec. The antipassive and verbal noun stems of Modern Yucatec correspond to stems in Itsaj that have long vowels without tone, and for that reason alone we would expect to find them in Colonial Yucatec. However, because they normally do not co-occur with -VI suffixes and therefore are not likely to be confused with other stems containing such suffixes, they only rarely appear with doubled vowels and/or

accents in the *Calepino de Motul*. An interesting exception is *cónol*, the antipassive stem meaning ‘to sell,’ which is *kòonol* in Modern Yucatec (and *kòon* in San Quintín Lacandon [Canger 1995]). The *Calepino* contrasts it with *conól* ‘goods for sale’ (which is *kòonol* in Modern Yucatec). They are both *konol* in Itsaj (Hofling and Tesucún 1997:359) and Mopan. These stems are unusual in Colonial and Modern Yucatec, Itsaj, and Mopan; San Quintín Lacandon has adopted the general pattern for antipassive and verbal noun stems (Canger 1995). Nevertheless, it is clear that Colonial Yucatec anticipated Modern Yucatec in lengthening the vowel in the antipassive stem but had not yet extended it to the verbal noun stem.

Whether vowel length and tone developed simultaneously or in separate steps from the infix */h/* that preceded them, the changes did not affect all parts of the lexicon at the same time. Mediopassives were among the first grammatical categories to undergo the changes, representing a large group of stems characterized by high tone. Antipassives derived from root transitives were probably not far behind, representing an even larger group of stems characterized by low tone. Participles and verbal nouns derived from root transitives were among the last to adopt vowel lengthening and ultimately low tone; these changes did not begin until some time after the *Calepino de Motul* was compiled. In what may have been a less systematic fashion, other kinds of nouns and adjectives acquired tone, some high and the others low, while the other changes were taking place. Just when each class of stems crossed the tonal boundary cannot be determined from the data available.

2.3.3. EVIDENCE FOR SCHWA IN COLONIAL YUCATEC. Modern Yucatec has five vowels: *a*, *e*, *i*, *o*, and *u*; the other three languages in the family (Itsaj, Lacandon, and Mopan) also have a sixth vowel, a schwa. Because the majority of languages in the family have six vowels, it is likely that Yucatecan Maya originally had the schwa too. The question is whether Colonial Yucatec had retained the schwa from earlier times, or had lost it by the time the *Calepino de Motul* and other Maya documents came to be written in alphabetic letters.

The *Calepino de Motul* records only five vowels for Colonial Yucatec, the same five vowels as in Modern Yucatec. However, this does not necessarily mean that Colonial Yucatec had only five vowels, just as the absence of a symbol for the glottal stop in the *Calepino* and Colonial Maya documents does not mean that the language lacked that consonant. Furthermore, the *Calepino* and other Maya language sources use a single symbol for both laryngeal and velar */h/*, as explained in 1.1. in this chapter. A symbol for one of the five vowels may also have represented the schwa.

Hofling (2000:5, 2011:4) describes schwa as a mid-to-high central vowel in Itsaj and Mopan, in both cases “higher than schwas in English *the* and *sofa*.” Bruce (1968:24) says that the schwa in the Naha dialect of Lacandon is mid and central.

Hofling treats the schwa as the short grade of */a/* in his Itsaj and Mopan dictionaries (Hofling and Tesucún 1997; Hofling 2011). It serves as the short form of */a/* in active transitive stems, contrasting with the longer */a/* in the corresponding antipassive and verbal noun stems and as the */a/* allophone of the *-VI* suffix that marks intransitive imperfective stems. For these reasons, it seems likely that the letter “*a*” could have represented the two vowels—*/a/* and schwa—in Colonial Yucatec.

The most common type of inchoative verb in Colonial Yucatec was marked by an *-h* suffix. As intransitive verbs, imperfective inchoatives suffixed *-al* to *-h*, yielding *-h-al*. If Colonial Yucatec had had six vowels, the vowel in this suffix would have been a schwa, as it is in Itsaj today (Hofling and Tesucún 1997:158). The *Calepino de Motul* sometimes lists two versions of the imperfective inchoative suffixes: *-h-al* and *-h-il*:

(53)	<u>-h-al Variant</u>	<u>-h-il Variant</u>	<u>Gloss</u>
	<i>bailhal</i>	<i>bailhil</i>	continue, last, persist
	<i>caclam=pixhal</i>	<i>caclam=pixhil</i>	kneel down
	<i>ceelhal</i>	<i>ceelhil</i>	feel, be cold

cohhāl	cohhil	sink into vice
culucnāchal	culucnachil	become very loud
çakhal	çakhil	itch
chalanhal	chalanhil	become clear, settled (what is turbid)
chol=axhal	chol=axhil	blister, form warts
chuh=calhal	chuh=calhil	become acidic (stomach)
et=malhal	et=malhil	pass where others pass, participate
labacnāchal	labacnachil	rot, spoil
talānhal	talānhil	become difficult, obscure, intricate
talānhal	talānhil	become decent, honest
tūhal	tūhil	stink, rot
utzhāl	utzhil	recover, improve
ukucnāchal	ukucnachil	become soaked, moist, damp
xibhal	xibhil	become sterile, impoverished (soil)
yanhal	yanhil	exist, have

Excluding the examples of -h-il that can be attributed to vowel harmony (bail-h-il, pix-h-il, and xib-h-il), this data set suggests that the vowel in the suffix was somewhere between /a/ and /i/, in other words a schwa. Not knowing exactly how to represent the vowel in these suffixes, the scribe wrote the suffixes sometimes as -h-al and sometimes as -h-il, implying that the vowel was higher and more fronted than /a/. This scribal indecisiveness can be interpreted as evidence that Colonial Yucatec had a schwa.

Colonial Yucatec lost the sixth vowel somewhere along the way to becoming Modern Yucatec. For evidence of how and when the language lost schwa, I consider a set of examples drawn from other Colonial and later sources. All Yucatecan languages have ma? 'no, not' as a negative particle (it is spelled as ma or maa in Colonial Yucatec) (V. Bricker et al. 1998:176; Canger 1995; Ciudad Real 1600?:fol. 277r; Hofling 2011:298; Hofling and Tesucún 1997:433; Ulrich and Ulrich 1976:127). When prefixed to yan 'exist,' it became manan or manaan 'there is not' in Colonial Yucatec (Ciudad Real 1600?:fol. 295r). The reflex of this expression is mānaʔan in the Naha dialect of Lacandon (Bruce 1968:27) and mānaʔ in the San Quintín dialect of the same language (Canger 1995), suggesting that the first vowel in manan/manaan was originally schwa. Support for this inference lies in documents other than the Calepino de Motul, which has only the manan/manaan spellings of this expression. During the sixteenth century and continuing into the first half of the seventeenth century, only manan/manaan was recorded in other documents as well. But a minan spelling appeared after 1650 and coexisted with the manan spelling, sometimes in the same document, suggesting scribal uncertainty about how to represent schwa. A land document from Ebtun and dated to 1670 contains examples of both spellings. At first, the manan spelling was more common than the minan spelling (15 examples of manan versus two examples of minan during the seventeenth century). By the end of the eighteenth century, there were almost four times as many minan spellings (60) as manan spellings (only 14). The last manan spelling can be dated to 1816, with a total of 77 minan spellings for the nineteenth century. By then, the schwa must have been raised to [i], accounting for the minaʔan form of this expression in Modern Yucatecan Maya today (V. Bricker et al. 1998:185). This history of the changing relationship between the manan and minan spellings suggests that the merging of schwa with either [a] or [i] must have been completed during the first quarter of the nineteenth century.

The vacillation between manan and minan seems to have been limited to texts written by Yucatecan Maya scribes. This is just as true of the Books of Chilam Balam as of notarial documents. For example, the Book of Chilam Balam of Chumayel has 57 examples of minan and six examples of manan (V. Bricker

1990a:315, 323–324), and the Book of Chilam Balam of Kaua has 28 examples of minan and three examples of manan (V. Bricker and Miram 2002); these proportions are in agreement with the late eighteenth-century date attributed to these books on other grounds. On page 19 of the Chumayel (Gordon 1913), three lines beginning with manan are immediately followed by five lines beginning with minan:

- | | | |
|------|--|--|
| (54) | <u>manan</u> tun c̣hapahal
<u>manan</u> tun chibil bac tiob
<u>manan</u> tun ɔam chacuil tiob
<u>mīnan</u> tun x pom kakil tiob
<u>mīnan</u> tun elēl tzemil tiob
<u>mīnan</u> tun yan akil tiob
<u>mīnan</u> tun tzentzem cimil tiob
<u>mīnan</u> tun c̣hibil pol tiob | 'There was no sickness then;
They had no aching bones then;
They had no high fevers then;
They had no pustule fever then;
They had no burning chests then;
They had no abdominal pains then;
They had no consumption then;
They had no headaches then.' |
|------|--|--|

Page 167 of the Kaua also has manan and mīnan in adjacent lines (Kaua n.d.:167):

- | | | |
|------|--|---|
| (55) | <u>manan</u> tun c̣hamac
<u>mīnan</u> tun cohtacil bin chibalnaci | 'There are no foxes then;
There are no pumas then that are going to bite.' |
|------|--|---|

The structural parallelism in the lines of these examples keys on the equivalence of the two spellings of the words that introduce them.

In their doctrinal and grammatical works, the Spanish priests did not distinguish between /a/ and /ə/, writing both as /a/ (e.g., Coronel 1620a, 1620b). This pattern is consistent with the phonology of Spanish vowels (Hualde 2005). In other words, these priests being Spanish and lacking a mid central schwa vowel in their native language, lowered schwa to [a] in their writings. Only in the middle of the nineteenth century did a Spanish priest use minan instead of manan in his sermons (Ruz 1846:I, 79–80), suggesting that by then the raising of the schwa to [i] in this expression had become the spoken norm, as it is today (V. Bricker et al. 1998:185). Only one schwa remains in Modern Yucatec, the one following the first person plural pronominal prefix, which was never written in Colonial Yucatec (see Chapter 4).

3. SUMMARY OF PHONOLOGICAL CHANGES THROUGH TIME

The transition from infixed [h] to vowel length and (by implication) high tone is evident in one nominal root and two transitive roots in the Calepino de Motul. During the intervening centuries between Colonial and Modern Yucatec, these changes became more pervasive, affecting mediopassive and some intransitive roots as well. Noun roots with long vowels in the Calepino eventually developed low tone. The one antipassive stem with a long vowel in the Calepino also acquired a low tone, a feature that characterizes virtually all antipassive stems based on transitive roots in Modern Yucatec. No participial roots in Colonial Yucatec had long vowels or low tone, but all of them do in Modern Yucatec today.

Other documentable changes involved a reduction in the number of consonantal phonemes from 21 to 20 and in the number of vocalic phonemes from 6 to 5. Colonial Yucatec had two consonants, both represented orthographically as “h,” one laryngeal [h] and the other velar [x]. They began to merge during the second half of the nineteenth century. “In Modern Yucatec, this distinction is still preserved in phonology, but phonetically the two /h/’s do not contrast” (Orie and V. Bricker 2000:306). Similarly, Colonial Yucatec

had a sixth vowel (schwa) that was in the process of being raised to [i] or lowered to [a] throughout the Colonial period. It has no phonetic resolution in Modern Yucatec, having merged completely with either [i] or [a].

NOTES

1. A more detailed inventory of co-occurrence restrictions can be found in Straight (1976:52–53, Table 13).
2. In his “modernized” edition of the *Calepino de Motul*, Arzápalo Marín (1995:Vol. I) doubles all accented vowels, including the ones in participial suffixes.

CHAPTER 4

PRONOUNS

Colonial Yucatec had three kinds of pronouns: dependent pronouns (sometimes called person markers), independent pronouns, and stative pronouns. Of these, only the first two kinds of pronouns have been documented in Modern Yucatec.

1. DEPENDENT PRONOUNS

1.1. DEPENDENT PRONOUNS IN COLONIAL YUCATEC. Colonial Yucatec had two sets of dependent pronouns: four clitic pronouns that are classified as belonging to set A and six pronominal suffixes that belong to set B. Two of the plural suffixes in set B were combined with clitic pronouns to mark the second- and third-person plurals of the pronouns of set A:

(1)	<u>Set A</u>		<u>Set B</u>	
	<u>Singular</u>	<u>Plural</u>	<u>Singular</u>	<u>Plural</u>
1st	in(u)	c(a) ~ k	-en	-(o)on
2nd	a(u)	a(u) ... -(e)ex	-ech	-(e)ex
3rd	u(y)	u(y) ... -(o)ob	-Ø	-(o)ob

u (phonetic [w]) replaced the glottal stop or /h/ in laryngeal-initial stems with first-person singular and second-person plural clitics; y had the same function with third-person clitics. (2a-b) shows that the first-person dependent clitic pronoun was often reduced to u and that the third-person clitic pronoun was often reduced to y before laryngeal-initial stems in Colonial Yucatec. The second-person clitic pronoun was never abbreviated in this way because to do so would have confused it with the first-person singular clitic pronoun. The paradigm in (2c) illustrates the use of pronominal clitics before nouns beginning with other consonants.

(2a) Glottal-stop initial noun: iɔin 'younger sibling'				
	<u>Singular</u>		<u>Plural</u>	
1st	(in)u	iɔin 'my younger sibling'	c	iɔin 'our younger sibling'
2nd	au	iɔin 'your younger sibling'	au	iɔinex 'y'all's younger sibling'
3rd	(u)y	iɔin 'his, her younger sibling'	(u)y	iɔinob 'their younger sibling'

(2b) /h/-initial noun: huun 'book, letter'

	<u>Singular</u>	<u>Plural</u>
1st	(in)u uun 'my book, letter'	c uun 'our book, letter'
2nd	au uun 'your book, letter'	au uunex 'y'all's book, letter'
3rd	(u)y uun 'his, her book, letter'	(u)y uunob 'their book, letter'

(2c) Non-laryngeal initial noun: çucun 'older brother'

	<u>Singular</u>	<u>Plural</u>
1st	in çucun 'my older brother'	ca çucun 'our older brother'
2nd	a çucun 'your older brother'	a çucunex 'y'all's older brother'
3rd	u çucun 'his, her older brother'	u çucunob 'their older brother'

The clitic pronouns could also serve as the subjects of verbs:

(3a) Glottal-stop initial verb: ilah 'saw it'

	<u>Singular</u>	<u>Plural</u>
1st	(in)u ilah 'I saw it'	c ilah 'we saw it'
2nd	au ilah 'you saw it'	au ilaheex 'you-all saw it'
3rd	(u)y ilah 'he, she saw it'	(u)y ilahoob 'they saw it'

(3b) /h/-initial verb: halah 'said it'

	<u>Singular</u>	<u>Plural</u>
1st	(in)u alah 'I said it'	c alah 'we said it'
2nd	au alah 'you said it'	au alaheex 'you-all said it'
3rd	(u)y alah 'he, she said it'	(u)y alahoob 'they said it'

(3c) Non-laryngeal initial verb: bonah 'painted it'

	<u>Singular</u>	<u>Plural</u>
1st	in bonah 'I painted it'	ca bonah 'we painted it'
2nd	a bonah 'you painted it'	a bonaheex 'you-all painted it'
3rd	u bonah 'he, she painted it'	u bonahoob 'they painted it'

Set B pronouns could be suffixed to nouns and adjectives to produce stative verbs:

(4a) Noun: uinic 'man'

	<u>Singular</u>	<u>Plural</u>
1st	uinic-en 'I am a man'	uinic-oon 'we are men'
2nd	uinic-ech 'you are a man'	uinic-eex 'you-all are men'
3rd	uinic-Ø 'he is a man'	uinic-oob 'they are men'

(4b) Adjective: ceel 'cold'

	<u>Singular</u>	<u>Plural</u>
1st	ceel-en 'I am cold'	ceel-oon 'we are cold'
2nd	ceel-ech 'you are cold'	ceel-eex 'you-all are cold'
3rd	ceel-Ø 'he, she, it is cold'	ceel-oob 'they are cold'

They could also serve as the subjects of intransitive verbs and as the direct objects of transitive verbs:

(5a) Intransitive verb: lub ‘fall’

	<u>Singular</u>	<u>Plural</u>
1st	lub-en ‘I fell’	lub-oon ‘we fell’
2nd	lub-ech ‘you fell’	lub-eex ‘you-all fell’
3rd	lub- Ø ‘he, she it fell’	lub-oob ‘they fell’

(5b) Transitive verb: ilah ‘saw it’

	<u>Singular</u>	<u>Plural</u>
1st	(u)y ilah-en ‘he saw me’	(u)y ilah-oon ‘he saw us’
2nd	(u)y ilah-ech ‘he saw you’	(u)y ilah-eex ‘he saw you-all’
3rd	(u)y ilah- Ø ‘he saw him, her, it’	(u)y ilah-oob ‘he saw them’

It should be noted that the meaning of (u)y ilahob in (5b) is inherently ambiguous. Although it can and does mean ‘he saw them’ in some contexts, it can also mean ‘they saw him’ and ‘they saw them’ in others. This is because the -ob suffix could mark third-person plural subjects as well as objects in Colonial Yucatec, and it could not be reduplicated in a transitive stem. A solution to this problem is described in 4. in Chapter 7.

Perhaps for these reasons, there was no rule of plural agreement in Colonial Yucatec. If the nominal subject took -ob as a plural suffix, the verb did not need it, and it was sometimes absent:

(6a) lay testig-ob ti ohelte_ v hahil
‘these were the witnesses who knew the truth

v cabal kax v canante Ju° Kumun lae
about the forest being given to Juan Kumun to care for’ (DZ569-073A-C)

(6b) lay testigosob ohelmail_ u poc=che col Andres Batune
‘it was these witnesses who have known about the abandoned cornfield of Andres Batun’
(TK610-012A-B)

Furthermore, if the reflexive pronoun co-occurred with the -ob suffix, the verb lacked it, because it was clear that the subject was also plural:

(7a) t u hoksah_ u ba-ob Gaspar Keb y etel Geronimo Keb Francisco Keb Jose Keb
‘Gaspar Keb and Geronimo Keb, Francisco Keb, and Jose Keb presented themselves’
(SB596A-002A-C)

(7b) ma tan uy oces_ u ba-ob yt. lay kax hele lae
‘they are not involving themselves with this forest today’ (PS740A-015A-B)

The order of multiple pronominal suffixes in verbal expressions is governed by a person hierarchy, with the first person followed by the second person followed by third person at the end:

(8a) bin ix a hant-ex-ob xan
‘and you-all are going to eat them also’ (Gordon 1913:89)

- (8b) hach tibil ix v tzectic-on-ob cuchi
 ‘and very virtuously they preached to us in the past’ (MID567:fol. 365, lines 18–19)
- (8c) lahitac u kinil ca t u kax-en-ob ca t u bis-en-ob ti u v Ranchoil X kanpokobche
 ‘that was the day when they tied me, and they carried me to his ranch of
 X kanpokobche’ (V. Bricker 1981a:209, lines 46–50)

In (8a), the clitic pronoun, a ‘you,’ serves as the second-person subject of the verb, hant ‘to eat,’ -ex ‘you-all,’ marks the subject as second-person plural, and -ob ‘them,’ refers to the object of the verb. In (8b), the subject of the verb is represented by the third-person clitic pronoun, v ‘he, she, it,’ and the plural suffix -ob, and the direct object is represented by the first-person plural suffix, -on ‘us.’ In both examples, -ob appears at the end of the verbal expression because, as the marker of a third-person plural subject or object, it ranks lower in the person hierarchy than the first- and second-person plural suffixes, -ex and -on. The same is true in (8c), where -en ‘me’ marks the first-person singular object, and -ob marks the third-person plural subject. In other words, the order of suffixed pronouns on verbs cannot be used for distinguishing subjects from objects.

The same principle applies to pronominal suffixes on nouns:

- (9a) y etel au al a mehen-ex-ob
 ‘and of your (pl.) children’ (SB596B-145B)
- (9b) talel tun u cahob a sucun-ex-ob
 ‘the older brothers of you-all come then’ (Gordon 1913:88)

1.2. DEPENDENT PRONOUNS IN MODERN YUCATEC. Like Colonial Yucatec, Modern Yucatec has two sets of dependent pronouns: four clitic pronouns labelled as set A and six pronominal suffixes labelled as set B:

	Set A		Set B	
	Singular	Plural	Singular	Plural
1st	iN(w)	kə	-en	-óʔon
2nd	a(w)	a(w) ... -éʔeš	-eč	-éʔeš
3rd	u(y)	u(y) ... -óʔob’	-∅	-óʔob’

w and y replace the glottal stop in glottal-stop initial stems with first-person singular and second- and third-person singular and plural clitics. N- represents a nasal which is realized as m- before bilabial stops (b, p, p’), as n- before dental stops (t, t’), affricates (č, č’, č, č’), fricatives (s, š), nasals (m, n), laterals (l), or palatal glides (y), and as ŋ- before velars (k, k’), glottals (ʔ, h), and labiovelar glides (w):

- (11a) Glottal-stop initial noun: ʔiɰ’ in ‘younger brother’
- | | Singular | Plural |
|-----|--|--------------------------------------|
| 1st | iɰw iɰ’ in ‘my younger sibling’ | kə ʔiɰ’ in ‘our younger sibling’ |
| 2nd | aw iɰ’ in ‘your younger sibling’ | aw iɰ’neš ‘y’all’s younger sibling’ |
| 3rd | (u)y iɰ’ in ‘his, her younger sibling’ | (u)y iɰ’nob’ ‘their younger sibling’ |

(11b) Non-glottal stop initial noun: sukúʔun 'older brother'

	<u>Singular</u>	<u>Plural</u>
1st	in sukúʔun 'my older brother'	kə sukúʔun 'our older brother'
2nd	a sukúʔun 'your older brother'	a sukúʔunéʔeš 'y'all's older brother'
3rd	u sukúʔun 'his, her older brother'	u sukúʔunóʔob' 'their older brother'

As in Colonial Yucatec, the clitic pronouns can also serve as the subjects of verbs:

(12a) Glottal-stop initial verb: ʔilah 'saw it'

	<u>Singular</u>	<u>Plural</u>
1st	t inʔw ilah 'I saw it'	tə ʔilah 'we saw it'
2nd	t aw ilah 'you saw it'	t aw ilahéʔeš 'you-all saw it'
3rd	t uy ilah 'he, she saw it'	t uy ilahóʔob' 'they saw it'

(12b) Non-glottal stop initial verb: b'onah 'painted it'

	<u>Singular</u>	<u>Plural</u>
1st	t in b'onah 'I painted it'	tə b'onah 'we painted it'
2nd	t a b'onah 'you painted it'	t a b'onahéʔeš 'you-all painted it'
3rd	t u b'onah 'he, she painted it'	t u b'onahóʔob' 'they painted it'

The suffixation of set B pronouns to nouns and adjectives in stative verbs is exemplified in (13a-b) below:

(13a) Noun: wíinik 'man'

	<u>Singular</u>	<u>Plural</u>
1st	wíinik-en 'I am a man'	wíinik-óʔon 'we are men'
2nd	wíinik-eč 'you are a man'	wíinik-éʔeš 'you-all are men'
3rd	wíinik-Ø 'he is a man'	wíinik-óʔob' 'they are men'

(13b) Adjective: kéʔel 'cold'

	<u>Singular</u>	<u>Plural</u>
1st	kéʔel-en 'I am cold'	kéʔel-óʔon 'we are cold'
2nd	kéʔel-eč 'you are cold'	kéʔel-éʔeš 'you-all are cold'
3rd	kéʔel-Ø 'he, she, it is cold'	kéʔel-óʔob' 'they are cold'

And, as in Colonial Yucatec, they can also serve as the subjects of intransitive verbs and as the direct objects of transitive verbs:

(14a) Intransitive verb: lúub' 'fall'

	<u>Singular</u>	<u>Plural</u>
1st	lúub'-en 'I fell'	lúub'-óʔon 'we fell'
2nd	lúub'-ech 'you fell'	lúub'-éʔeš 'you-all fell'
3rd	lúub'-Ø 'he, she, it fell'	lúub'-óʔob' 'they fell'

(14b) Transitive verb: ?ilah 'saw it'

	<u>Singular</u>	<u>Plural</u>
1st	uy ilah-en 'he saw me'	uy ilah-ó?on 'he saw us'
2nd	uy ilah-eč 'he saw you'	uy ilah-é?eš 'he saw you-all'
3rd	uy ilah- Ø 'he saw him, her, it'	uy ilah-ó?ob' 'he saw them'

Modern Yucatec has the same problem with the ambiguity of -ó?ob' in transitive expressions with third-person subjects as Colonial Yucatec and resolves it in the same way, namely by not having a rule of plural agreement:

(15a) pwes ká?ah t y á?(al)ah_ e máak-ó?ob'o?
'well, when those men said it' (CHK979)

(15b) k uy ilik_ u b'a-ob'
'they see themselves' (Blair and Vermont-Salas 1965:398)

As in Colonial Yucatec, the person hierarchy determines the order of suffixed pronouns in Modern Yucatec:

(16a) tú?ušt t aw il-é?eš-ó?ob'
'where did you-all see them?' (Blair and Vermont-Salas 1965:439)

(16b) hé? u páahtal a b'isk-en-é?eš šan t aw éetel-é?eš-e?
'could you-all take me with you-all, too?' (Blair and Vermont-Salas 1965:440)

(16c) tóhka?ile? u k'áató?ob' u b'is-ó?on-ó?ob' saki?
'as a matter of fact, they want to take us to Valladolid' (Blair and Vermont-Salas 1965:440)

The subject of the verb, ?il 'to see,' is represented by the clitic pronoun, a 'you,' and the pronominal suffix, -é?eš 'you-all,' in (16a), and -ó?ob' 'them' refers to the object of the verb. The same clitic pronoun and pronominal suffix serve as the subject of the verb in (16b), but because the direct object, -en 'me,' ranks higher in the person hierarchy than -é?eš 'you-all,' it immediately follows the verb. Likewise in (16c), -ó?on 'us' precedes -ó?ob' 'they' after the verb (b'is) because the first person outranks the third person in the hierarchy. In other words, the function of a pronominal suffix as a subject or an object does not govern its position after the verb.

Pronominal suffixes on nouns are treated in the same way in Modern Yucatec:

(17) kuš túun a sukú?un-é?eš-ó?ob'
'and how about your (pl.) older brothers' (Blair and Vermont-Salas 1965:22)

So, also, is the inclusive exhortative stem of b'in 'to go' in Modern Yucatec:

(18a) kó?on-é?eš b'a=pačtik le k'áaša?
'let's surround this forest!' (V. Bricker et al. 1998:23)

(18b) k-ó?on-é?eš túušt(i)k-é?eš-ó?ob' le ?eskwèlää?
'let's send them to this school!' (CHK949)

1.3. HISTORICAL CHANGE IN CLITIC PRONOUNS. The principal differences between the Colonial and Modern paradigms for pronominal inflection concern the first-person singular and plural clitic pronouns. The first-person singular clitic pronoun is often abbreviated as *u* (phonetic [w]) in Colonial Yucatec, but not in Modern Yucatec (*u* *icin* versus *inw* *fiç* 'in 'my younger brother').

Of greater historical interest is the merging of the two forms of the first-person plural clitic pronoun (*c* before glottal-stop and laryngeal /h/ and *ca* before other consonants) in Colonial Yucatec into a single form (phonetic [kə]) before all consonants in Modern Yucatec. The earliest evidence of this merger in my corpus is in the ergative version of this pronoun associated with verbs in two documents from Oxkutzcab in the Puuc region in the southwestern part of the peninsula that were produced in 1772 and 1775:

- (19a) *u tial ca c bete u carta de bentail hunac kaax u conma ti Diego Ppol cimi*
 'in order that we prepare a bill of sale for one forest that he sold to Diego Ppol who died'
 (OX772-003C-E)
- (19b) *u tial ca c ðae u car[ta] bentail u man kax ti haan ah cimil Pasql Pech*
 'in order that we give him a bill of sale for his purchase of a forest from the son-in-law of the deceased Pasqual Pech' (OX775-002D-E)

It then moved north to Tekanto in the northwestern part of the peninsula, where it occurs in a document dated to 1779, this time as a possessive pronoun:

- (20) *vay t u mektan cahil c yumilan ah bolon pixan santo agustin ah patron vay tek[an]to*
 'here in the jurisdiction of the town of our patron, blessed Saint Augustine, the patron here in Tekanto (TK779A-001C-F)

It showed up five years later in the southeastern part of the peninsula in multiple verbal contexts in a document from Chunhuhub bearing a date of 1784:

- (21a) *ma t pathi c betic colob*
 'we were not able to prepare our fields' (HB784C-206A-B)
- (21b) *c u ðocol c meyah trapich tac las ocho ua las nueve akab tan c meyah*
 'we were finishing working at the still at eight or nine at night, we were working' (HB784C-215A-C)
- (21c) *bai cat c tasah tac bakhahal*
 'thus when we brought it to Bacalar' (HB784C-223A)

After four more years, it appeared in Ebtun in the northeastern part of the peninsula in 1787, once again in a verbal context:

- (22) *lay u chunpahal binon c ximbalte*
 'this was the reason why we went to visit it' (EBT787A)

Thus the geographic source of the replacement of the *ca*-allomorph of the first-person plural clitic pronoun with *c* (phonetic [kə]) seems to have been the Puuc region, from where it spread to the north and east. The merger began with the ergative pronoun and later was adopted more slowly by the possessive pronoun.

The circumstances that brought about this merger involved concomitant changes in the tense/aspect system of the language, which are described in Chapter 5.

The *ca*-allomorph of the first-person clitic pronoun survives today only in the religious phrase *ca yumil ti Dios* ‘our Lord who is God.’ However, because *ca* no longer means ‘our’ in Modern Yucatec, native speakers of the language interpret this expression as *caꞤ yumil ti Dios* (phonetic [káʔah yùumil tiʔ dyòos]) ‘second Father who is God,’ claiming that it refers to Christ as the second manifestation of God in the Trinity.

2. INDEPENDENT PRONOUNS

The independent pronouns in Colonial and Modern Yucatec resemble the suffixed dependent pronouns in not distinguishing between subjects and objects. The first- and second-person pronouns remained the same over time; the third person pronouns did not.

2.1. INDEPENDENT PRONOUNS IN COLONIAL YUCATEC. The independent pronouns in Colonial Yucatec appear in (23) below:

(23)	<u>Singular</u>	<u>Plural</u>
1st	ten ‘I, me’	t(o)on ‘we, us’
2nd	tech ‘you’	t(e)ex ‘you-all’
3rd	lay ‘he, she, it, him, her’	layob ‘they, them’

The first- and second-person pronouns are clearly related to the set B pronominal suffixes, which are also not marked for case (see [5a–b] above). There were no third-person singular or plural independent pronouns as such. For this purpose, Colonial Yucatec used the definite article *lay* (plural, *layob*), which, in combination with deictic enclitics, functioned as demonstrative pronouns (see 7. below and 2. in Chapter 15).

2.2. INDEPENDENT PRONOUNS IN MODERN YUCATEC. The independent pronouns in Modern Yucatec are listed in (24) below:

(24)	<u>Singular</u>	<u>Plural</u>
1st	tèen ‘I, me’	tóʔon ‘we, us’
2nd	tèeč ‘you’	téʔeš ‘you-all’
3rd	letiʔ ‘he, she, it, him, her’	letiʔob ‘they, them’

The first- and second-person pronouns are cognates of those in Colonial Yucatec; the third-person pronouns are not. They are composed of two elements: *le* and *tiʔ*. *le* may have come from the *le(y)* form of *lay* that made its first appearance in the late seventeenth century (see 2.3. below). *tiʔ* is the all-purpose preposition meaning ‘to, in, at, on, from, by’ in both Colonial and Modern Yucatec.

2.3. HISTORICAL CHANGE IN INDEPENDENT PRONOUNS. The transition from Colonial to Modern Yucatec was marked by significant changes in the third-person independent pronouns, in the course of which *lay* and *layob* were replaced by *letiʔ* and *letiʔob*, respectively. The first step in this change was the gradual conversion of *lay* to *le(y)* or *lei* and *layob* to *leob* or *leyob*. *le(y)* appeared first in Ebtun in a document dated to 1675. It showed up in Tekanto in 1739, and, from then on, it was in free variation with *lay* in the northern part of the peninsula. By the 1930s, *lay* had been superceded by *le* in almost all contexts, showing up occasionally in letters sent by descendants of the rebel Maya from the Caste War of 1847–1853, living in what

is now the state of Quintana Roo, to the American archaeologist, Sylvanus G. Morley, who was working at Chichen Itza at the time (Sullivan 1989).

In the meantime, completely new forms of the third-person independent pronoun had appeared in the documentary record at Tekanto that would eventually replace the *lay* and *layob* forms. A document bearing a 1747 date contained the first example of *laytiob*; its singular form—*layti* (also spelled *laiti*)—was mentioned about forty years later in a document from Chunhuhub in the eastern part of the peninsula dated to 1783. In the 1790s, *layti* began to receive competition from *leyti* and *leiti*. By the middle of the nineteenth century, *layti* had dropped out of use completely, and *leyti* had assumed its modern form: *leti*.

lay occurs today only in the adverbial frame, *láayli ... e?* ‘always, still, even, now’ (Blair and Vermont-Salas 1965:30; Hanks 1990:18–19, Table 1.1); *léeyli ... e?* is a variant of this expression in the Hocaba dialect (V. Bricker et al. 1998:165). The first mention of *layli ... (e)* appeared in two documents from 1567:

(25a) *layli tun lukiob vaye ca talob Españae*
 ‘especially some who left from here when they came to Spain’ (Zimmermann 1970:32 and folio 68r)

(25b) *y oklal layli sacach tococon*
 ‘because he still frequently defends us’ (MID567:fol. 366, line 62)

leyli ... e (also spelled *leili ... e*) did not appear in my corpus until almost three centuries later, in 1825, some time after the first appearance of *le(y)* at Tekanto, but it did not replace *layli ... e* in other regions.

3. INDIRECT OBJECT PRONOUNS

In order to understand the structure of indirect object pronouns in Colonial Yucatec, it is necessary to consider their structure in Modern Yucatec first. Such pronouns consist of two morphemes: (1) the preposition *ti?*, which means ‘to’ or ‘from’ in this context, and (2) an independent pronoun from the set listed in (26):

(26)	<u>Singular</u>	<u>Plural</u>
1st	<i>ti? tèn</i> ‘to me’	<i>ti? tó?on</i> ‘to us’
2nd	<i>ti? tèč</i> ‘to you’	<i>ti? té?eš</i> ‘to you-all’
3rd	<i>ti? leti?</i> ‘to him, her, it’	<i>ti? leti?ob’</i> ‘to them’

The terms listed in (26) are frequently abbreviated in Modern Yucatec as follows:

(27)	<u>Singular</u>	<u>Plural</u>
1st	<i>ten</i> ‘to me’	<i>tó?on</i> ‘to us’
2nd	<i>teč</i> ‘to you’	<i>té?eš</i> ‘to you-all’
3rd	<i>ti?</i> ‘to him, her, it’	<i>ti?ob’</i> ‘to them’

It should be noted that the long vowels in *tèn* and *tèč* become short in their abbreviated form, permitting them to be distinguished from the independent pronouns listed in (24). However, there is no change in *tó?on* and *té?eš* under the same circumstances, and the elimination of *ti?* before them makes them indistinguishable from their independent forms.

When the third-person singular and plural indirect object pronouns are abbreviated, the preposition *ti?* remains, and *leti?* is deleted. The *-ob’* suffix in *leti?ob’* then attaches to the preposition, leaving *ti?ob’* as the short form of the third person plural.

The documents in my Colonial database contain a few examples of *ti ten* 'to me' and *ti toon* 'to us,' but no examples of the long form of the second- and third-person singular and plural indirect object pronouns:

- (28a) *t u jah v hahal than ti ten*
he gave his true word to me' (KAN-790B)
- (28b) *ma u chen satal ti toon*
'it won't just be removed from us!' (DZ791A-008B)

On the other hand, the abbreviated forms of the indirect object pronouns are well represented in Colonial documents:

(29)		<u>Singular</u>	<u>Plural</u>
	1st	ten 'to me'	toon 'to us'
	2nd	tech 'to you'	teex 'to you-all'
	3rd	ti 'to him, her, it'	tiob 'to them'

The first- and second-person singular and plural forms in (29) closely resemble the corresponding independent pronouns in (23). Some examples of their use in context appear in (30a-f) below:

- (30a) *laytii c u caic toon*
'it is he who gives it to us!' (HB784B-104B)
- (30b) *licil c alic tech*
'we say it to you'
- (30c) *ma ix mac bin luksic ten*
'and no one will take it away from me' (OX683-013A)
- (30d) *ma bahun in cibte hun tech*
'I have never written a letter to you' (Ciudad Real 1600?:fol. 129v)
- (30e) *ti cabi ti lae*
'this was given to him' (MA733H-805C)
- (30f) *halabi ix tiob*
'and it was said to them' (DZ587A-017A)

4. STATIVE PRONOUNS

Colonial Yucatec had a set of four stative pronouns that appeared frequently in notarial documents:

(31)		<u>Singular</u>	<u>Plural</u>
	1st	tencen 'I who am'	t(o)onc(o)on 'we who are'
	2nd	techcech 'you who are'	teexcex 'you-all who are'

The use of such a pronoun in a notarial document from Tituc near Chunhuhub in the eastern part of the Yucatan peninsula in 1784 is illustrated in (32) below:

- (32) Toncon Then.^{te} Alc.^{es} Reg.^s essn^{no} y etel t u lacal u cahil tituc
 ‘We who are deputy, magistrates, councilmen, scribe, and the entire town of Tituc

lic c talel t a tzicbenil tan Ca yum Ahaucan
 come before Your Excellency, our father Bishop’ (HB784C-201A-202C)

There were also abbreviated forms of these pronouns that retained only the second syllable of the full forms:

- | | | | |
|------|-----|--------------------|------------------------|
| (33) | | <u>Singular</u> | <u>Plural</u> |
| | 1st | cen ‘I who am’ | coon ‘we who are’ |
| | 2nd | cech ‘you who are’ | ceex ‘you-all who are’ |

It usually follows a prior reference to the same person (and number) in the discourse. The two forms of the stative pronouns appeared frequently in documents throughout the Colonial period and occasionally during the first half of the nineteenth century. They have not survived into Modern Yucatec.

5. INDEPENDENT POSSESSIVE PRONOUNS

In Colonial and Modern Yucatec, possession is normally expressed by one of the set A clitic pronouns followed by a noun root or stem, as in (2a–c) and (11a–b) above. A more emphatic way of expressing possession in Colonial Yucatec involved combining the clitic pronouns with *tial*:

- | | | | |
|------|-----|-------------------------|-----------------------|
| (34) | | <u>Singular</u> | <u>Plural</u> |
| | 1st | in tial ‘mine’ | ca tial ‘ours’ |
| | 2nd | a tial ‘yours’ | a tiallex ‘you-all’s’ |
| | 3rd | u tial ‘his, hers, its’ | u tialob ‘theirs’ |

The counterpart of this paradigm in Modern Yucatec is:

- | | | | |
|------|-----|---------------------------|--------------------------|
| (35) | | <u>Singular</u> | <u>Plural</u> |
| | 1st | in tyáʔal ‘mine’ | kə tyáʔal ‘ours’ |
| | 2nd | a tyáʔal ‘yours’ | a tyáʔaléʔeš ‘you-all’s’ |
| | 3rd | u tyáʔal ‘his, hers, its’ | u tyáʔalóʔob ‘theirs’ |

It should be noted that *tial* is sometimes spelled *tiyal* in the Colonial sources, indicating replacement of the glottal stop between the two vowels with a glide, whereas the solution for vowel hiatus in Modern Yucatec is to palatalize the initial consonant of *tiʔal* and to move the glottal stop into the *-al* suffix (cf. **2.3.1.** in Chapter 3).

The third-person singular form of the independent possessive pronoun also serves as a subordinate conjunction in the following examples from Colonial and Modern Yucatec:

- (36a) v tial c ilab v lumob v kax Felipe Chel
'in order that we might see the lands of the forest of Felipe Chel' (YT718B-105B)
- (36b) u tial c chinpolte a tzicbenil tan
'in order that we might bow our heads before Your Excellency' (HB784C-203A-203B)
- (36c) u tyá?al u tàal u kaškó?ob' túun hú?uhi?e?
'in order that they come to find Huhi then' (V. Bricker 1979c:31[no.24])

The example in (36b) is the continuation of the sentence begun in (32) above.

6. REFLEXIVE PRONOUNS

The base of reflexive pronouns in Colonial Yucatec was the noun, *ba* 'self,' which was inflected for person with the set A clitic pronouns:

(37)		<u>Singular</u>	<u>Plural</u>
	1st	in ba 'myself'	ca ba 'ourselves'
	2nd	a ba 'yourself'	a baex 'yourselves'
	3rd	u ba 'himself, herself, itself'	u baob 'themselves'

The cognates of these possessive pronouns in Modern Yucatec are:

(38)		<u>Singular</u>	<u>Plural</u>
	1st	im b'ah 'myself'	kə b'ah 'ourselves'
	2nd	a b'ah 'yourself'	a b'ahé?eš 'yourselves'
	3rd	u b'ah 'himself, herself, itself'	u b'ahó?ob' 'themselves'

See **1.2.3.** in Chapter 8 for contextual examples of such pronouns.

7. DEMONSTRATIVE PRONOUNS

The base of the demonstrative pronouns was *lay* in Colonial Yucatec, which became *le* in Modern Yucatec, as explained in **2.3.** above. This base was combined with the deictic enclitics, *la* (proximal) and *lo* (distal) and the topicalizing enclitic, *e*, to form demonstrative frames in Colonial Yucatec (see **2.** in Chapter 15):

- (39a) lay kax lae
'as for this forest' (OX595-007)
- (39b) lay kax loe
'as for that forest' (OX595-010A)
- (39c) ley kax lae
'as for this forest' (OX772-018C)

In these examples, the demonstratives have an adjectival function because *lay* and *ley* modify the noun *kax* 'forest.' However, there are also a few examples where no noun is present, and the demonstrative has a purely pronominal function:

- (40a) *lay lae* v tial Salvador Masun
'as for this one, it belongs to Salvador Masun' (OX785-031A-031B)
- (40b) t u lalac *layob lae*
'as for all of these' (MA733A-015)
- (40c) *ley lae* h conic y oklal lahuca-kal peso taknil
'this one, we buy it for 240 peso coins' (DZ791A-005A-005B)

8. INTERROGATIVE AND RELATIVE PRONOUNS

The pronouns in these categories are both formally and semantically related to each other, as can be seen most clearly in Colonial Yucatec, where the interrogative pronouns were formed by suffixing -x to a relative pronoun:

(41)	<u>Interrogative</u>	<u>Relative</u>
	<i>bahunx</i> 'how many? how long? how much?'	<i>bahun</i> 'as many as'
	<i>balx</i> 'what?'	<i>bal</i> 'thing, what'
	<i>bicx</i> 'how?'	<i>bic</i> 'how, as, like'
	<i>bi(y)kinx</i> 'when?'	<i>bikin</i> 'when'
	<i>macx</i> 'who?'	<i>mac</i> 'person, man, human being'
	<i>tabx</i> 'where?'	<i>tab(a)</i> 'where'
	<i>tubx</i> 'where?'	—

Some examples of these interrogatives in context appear in (42a-i) below:

- (42a) *bahunx* takin a çamtah ti be
'how much money did you spend on travel?' (Ciudad Real 1600?:fol. 97v)
- (42b) *bahunx* a lutz kay
'how many fish did you catch with a hook?' (Ciudad Real 1600?:fol. 275r)
- (42c) *bahunx* ma kuchuc t u kak chumuc kin
'how long is it until noon?' (Ciudad Real 1600?:fol. 41r)
- (42d) *balx* u katbal teche
'what is being asked of you?' (Ciudad Real 1600?:fol. 239v)
- (42e) *bicx* bin au utzcinic lo
'how will you improve that?' (Ciudad Real 1600?:fol. 437r)

- (42f) bikinx a cibic benel campeche
'when do you want to go to Campeche?' (Ciudad Real 1600?:fol. 70v)
- (42g) macx au etail uaye
'who is your friend here?' (Ciudad Real 1600?:fol. 166r)
- (42h) tabx likulech
'where do you come from?' (Ciudad Real 1600?:fol. 269r)
- (42i) tubx yan u nucil uinicob
'where are the principal men?' (Ciudad Real 1600?:fol. 333v)

Additional examples appear in **2.5.** in Chapter 16.

Over time, the consonant clusters at the end of interrogative pronouns—nx, lx, cx, and bx—were eliminated by deleting either the interrogative suffix or the antecedent consonant, resulting in the interrogative pronouns found in Modern Yucatec today:

(43)	<u>Interrogative</u>	<u>Relative</u>
	b'ahuš 'how much?'	b'ahun 'as many as'
	b'ahun 'how many?'	
	b'aʔaš 'what?'	b'áʔaš 'what'
	b'iš 'how?'	b'iš 'how, as, like'
	b'ik'iš ~ b'ik'in 'when?'	b'ik'in 'when'
	b'ukáʔah 'how much? how many?'	b'ukáʔah 'how much, how many'
	máaš 'who?'	máaš 'who'
	túʔuš 'where?'	túʔuš 'where'

These changes were already well underway during the second half of the sixteenth century, for the *Calepino de Motul* contains the following alternative forms of the interrogative pronouns:

- (44) bahun ~ bahunx 'how many?'
- bal ~ bax ~ balx 'what?'
- bic ~ bicx 'how?'
- bi(y)kin ~ bi(y)kinx 'when?'
- mac ~ macx 'who?'
- tab ~ taba ~ tabx ~ tubx 'where?'

Furthermore, (43) shows that in four cases (b'áʔaš, b'iš, máaš, and túʔuš), the original interrogative form replaced the original relative pronoun as well, thereby blurring the formal distinction between the two types of pronouns even more.

In accounting for the changes that have taken place in interrogative and relative pronouns since the late sixteenth century, it is instructive to compare the negation of relative pronouns in Colonial and Modern Yucatec:

(45)	<u>Colonial Yucatec</u>	<u>Modern Yucatec</u>
	ma bahun 'scanty, limited'	
	ma bal 'nothing'	miš b'áʔal 'nothing'
	ma bici(o) 'in no way'	
	ma biykin 'never again'	miš b'ik'in 'never'
	ma biykini 'never before'	
	ma mac 'no one'	miš máak 'no one'
	ma tab(a) 'nowhere'	miš túʔuś 'nowhere'

In (45), *miš* is the Modern counterpart of Colonial *ma-ix* 'not, nor,' which is composed of the negative particle *ma* and the clitic conjunction *ix* 'and.' There are no counterparts of *ma bahun* and *ma bici(o)* in Modern Yucatec. Another difference is that only the *tubx* form of the interrogative pronoun meaning 'where?' survived into Modern Yucatec (as *túʔuś*), where it represents both the interrogative and relative pronouns and is the only negated relative pronoun that has retained the *x/š* suffix.

Contextual examples of the steps in the transformation of the Colonial into the Modern forms of the negative pronouns appear in (46a–c, 47a–c, 48a–d, 49a–c):

- (46a) ma bal yan ten
'I have nothing' (Ciudad Real 1600?:279r) [1577–1620]
- (46b) ma-ix bal ca kat ti
'and nothing do we request of him' (TTZ589) [1589]
- (46c) ma u tuculob mix bal
'they did not think of anything' (CHA850A) [1850]
- (47a) ma bikin in hoppol ti baxal t u ca=ten
'I never begin to joke again' (OX683-004A) [1683]
- (47b) ma-x bikin bin y al missa
'and never will he say Mass' (PCH779B) [1779]
- (47c) t u men mix bikin bin hokoc
'because never will he come out' (V. Bricker 1981a:216, line 293) [1851]
- (48a) ma mac bin luksic ti lae
'no one will take it away from him' (TK725E) [1725]
- (48b) ma-ix mac bin luksic ten
'and no one will take it away from me' (OX683-013A) [1683]
- (48c) u tial ma-x mac bin tʰanac y oklal
'and in order that no one will speak against' (KAN778A) [1778]
- (48d) mix mac bin luksic xan
'and no one will take it away either' (KAN813C) [1813]

- (49a) ma tab in benel
'I am going nowhere' (Ciudad Real 1600?:fol.299r) [1577–1620]
- (49b) ma-ix tab c u chictahal toon
'and nowhere do we come across it' (MID567:fol. 367, line 114) [1567]
- (49c) mix tux yanhi v conolob t u men u tropa
'and nowhere exist their gunshot wounds by his troops' (AYN851A) [1851]

They show that the vowel hiatus in *ma-ix* was resolved by deleting one of the vowels, with *mix* dominating *ma* over time. The clitic conjunction *ix* did not survive into Modern Yucatec, and *mix* has completely replaced *ma* as the negative particle in negative pronominal constructions.

9. INDEFINITE PRONOUNS

Colonial Yucatec had three sets of indefinite pronouns, which have been reduced to only two in Modern Yucatec.

9.1. INDEFINITE PRONOUNS IN COLONIAL YUCATEC. The *Calepino de Motul*, dating to between 1577 and 1620, lists two kinds of indefinite pronouns as entries (Ciudad Real 1600?:fols. 184v-185r, 186v-187r, 436v-437r, 441v-442r), one introduced by *hij* (phonetic [hiʔ]) and the other by *ua* (phonetic [wáah]). The former produces pronouns whose glosses end in “-ever” and/or begin with “any-” (e.g., whatever, anything; whenever, any time; however, anyhow; whoever, anyone; wherever, anywhere). The latter generates pronouns whose glosses begin with “some-” (e.g., something, somehow, sometime, someone, somewhere):

- | | | |
|------|---------------------------------------|--------------------------|
| (50) | <u>-ever/any-</u> | <u>some-</u> |
| | hi bahun 'however much, however many' | ua bahun 'somewhat' |
| | hi bal 'whatever, anything' | ua bal 'something' |
| | hi bic(i) 'like, however, anyhow' | ua bic(i) 'how, somehow' |
| | hi bikin 'whenever, anytime' | ua bi(y)kin 'sometime' |
| | hij mac 'whoever, anyone' | ua mac 'someone' |
| | hi tab(a) 'wherever, anywhere' | ua tab 'somewhere' |

Some examples of their use in the *Calepino* appear in (51a–g) and (52a–f):

- (51a) bin in cáb a naate hi bahun a payma ti Dios
'I will inform you of how much you have owed to God' (Ciudad Real 1600?:fol. 126v)
- (51b) hij bal v hol tech
'whatever your purpose is' (Ciudad Real 1600?:fol.185r)
- (51c) chac ila hi bal lic a beeltice
'examine carefully whatever you do!' (Ciudad Real 1600?:fol.225v)

- (51d) hi bici toon çamal ca=beh
'however we will be tomorrow or the day after tomorrow' (Ciudad Real 1600?:fol.185r)
- (51e) ma c ohelma hi bikin v kin ca cimil
we have not known whenever the day of our death is' (Ciudad Real 1600?:fol.185r)
- (51f) hi mac bin ocolnace
'whoever will steal' (Ciudad Real 1600?:fol.186v)
- (51g) hij tab v hol tech
'wherever your end is' (Ciudad Real 1600?:fol.187r)
- (52a) yanhi v hanal va bahun
'he had to eat somewhat' (Ciudad Real 1600?:fol.436v)
- (52b) baci y emelob v çhab va bal ti y otoch
'that they don't descend in order to take something from his home' (Ciudad Real 1600?:fol.437r)
- (52c) y utzcinahob va bici
'they improved it somehow' (Ciudad Real 1600?:fol.437r)
- (52d) bin vilbech va biykin
'I will see you sometime' (Ciudad Real 1600?:fol.437r)
- (52e) kubente ti va mac
'entrust it to someone!' (Ciudad Real 1600?:fol.441v)
- (52f) bin [h]okoc va tab citac
'he will emerge from somewhere' (Ciudad Real 1600?:fol.442v)

However, there must have been a third set of indefinite pronouns in the sixteenth century, not mentioned in the Calepino, for a letter bearing a date of 9 March 1567 contains the following phrase:

- (53) he bal v bal v baob
'whatever their possessions may be' (MID567:fol. 367, line 100)

This example, in which the relative pronoun is preceded by he instead of hi, is unique in that letter, which has hi bic, hi bahun, and hi bal in other sentences. It is, of course, possible that the scribe erred in writing he instead of hi in this phrase, but this is not the only example of he bal and the use of he with other relative pronouns in Colonial Yucatec.

By the middle of the seventeenth century, there were additional examples of indefinite pronouns with he in the Puuc region of Yucatan:

- (54a) he bicil t u çahob
'however they gave it' (DZ651C-207A)

- (54b) he bicil y ohelmail v kaxob ah couoh yan ti kan=che lae
 ‘inasmuch as he has known the forests of the Couoh people who are at Kanche’ (DZ651A-013A-013C)

They became common during the eighteenth century and thereafter:

- (55a) he bahun kin cuxan y okol cab lae
 ‘for as many days as he is alive on earth’ (TK738I)
- (55b) utzac he bal au olah helel lae
 ‘it should be whatever you desire’ (OX738B-115B-115C)
- (55c) he bix yanile
 ‘however it exists’ (OX738-011A)
- (55d) he bahun bin v katee
 ‘as much as he will request’ (KAN790B)
- (55e) he tux hop yn tzolic same
 ‘wherever I began to arrange it before’ (CHL713A)
- (55f) he max y olahe
 ‘whoever wants it’ (KAN726A)
- (55g) he max bin u jocbes inv almah-tñane
 ‘whoever will obey my commandment’ (V. Bricker 1981a:189, line 77)

Indefinite pronouns with *hij* coexisted with those based on *he* into the 1730s. The most recent examples in my database with *hij* are in documents dated to 1733 and 1743:

- (56a) ca yx cabac hentensia y okol hij mac bin sosouic
 ‘and that the sentence might be placed on whomever will disturb it’ (MA733D-315A-315B)
- (56b) hij bicil manan yn tzaal tñan y okol lay kaax joc v ppizil lae
 ‘however, I have no quarrel over this forest that has been measured’ (MA733F-625A-625C)
- (56c) hij bicil mailmac v uinicil bin helbesic v tñan justisia
 ‘however, none are the men who will change the words of justice’ (MA733D-306A-306C)
- (56d) c ilah ix v hahil tñan hij bicil yan jentensia ychile
 ‘and we saw the true word; however, there is a sentence in it’ (MA733G-708A-708C)
- (56e) yt hi bahun ocan ti y ol ca cilich na ti santa yglesia
 ‘and however much enters the heart of our holy mother in the holy church’ (TK743F)

9.2. INDEFINITE PRONOUNS IN MODERN YUCATEC. Modern Yucatec has two kinds of indefinite pronouns. One is introduced by the interrogative particle *wáah* (V. Bricker et al. 1998:298):

- (57) wáah b'á?aş 'something'
 wáah b'á?aş k'îin 'sometimes'
 wáah b'îš 'somehow'
 wáah máaş 'someone'
 wáah tú?uš 'somewhere'

The major difference between this set of indefinite pronouns and the ones listed in the second column of (50) is that they use the interrogative instead of the relative form of the pronoun (e.g., wáah b'á?aş instead of wáah b'á?al). Another difference is that wáah b'á?aş k'îin seems to have replaced ua bikin (phonetic [wáah b'ik'in]) as the indefinite pronoun meaning 'sometime.'

The second set of indefinite pronouns in Modern Yucatec occurs within the topical frame *hé?e ...e?* (V. Bricker et al. 1998:102–103):

- (58) hé?e b'á?ale? 'whatever, anything'
 hé?e b'á?ase? 'whatever, anything'
 hé?e b'á?aş k'îin 'whenever'
 hé?e b'îše? 'however, anyhow'
 hé?e máaše? 'whoever, anyone'
 hé?e tú?uše? 'wherever, anywhere'

In this case, there are two forms of the indefinite pronoun meaning 'whatever, anything,' one based on the relative pronoun (hé?e b'á?ale?) and the other on the interrogative pronoun (hé?e b'á?aše?). The other indefinite pronouns employ only the interrogative forms. And here, as in the indefinite pronouns in (57), b'á?aş k'îin has replaced bikin in the temporal indefinite pronoun meaning 'whenever.'

Uncertainty can be expressed by suffixing -ak to the pronoun in the *hé?e ... e?* frame (V. Bricker et al. 1998:28, 102–103):

- (59) hé?e b'á?alake? 'whatever it may be'
 hé?e b'á?ašake? 'whatever it may be'
 hé?e b'îšake? 'however it may be'
 hé?e máašake? 'whoever it may be'
 hé?e tú?ušake? 'wherever it may be'

9.3. THE HISTORICAL STATUS OF TOPICALIZED INDEFINITE PRONOUNS. Although the *Calepino de Motul* has no examples of indefinite pronouns with *he*, it does list *he ... e* as one of its entries and describes it as a topicalizing frame (*Ciudad Real* 1600?:fol. 179v), implying that it must have played a role in the evolution of indefinite pronouns like *hij bal* into *hé?e bá?ale?* 'whatever, anything.' This could not have happened directly because, although there are a few examples of *hij ... e* in the *Calepino* (e.g., [51c, f]), the topicalizing enclitic was clearly not obligatory in such contexts (e.g., [51a–b, d–e, g]). Nor did it appear consistently after *he* had replaced *hij* later in the Colonial period, having been represented in at most 72 percent of the examples from the second half of the eighteenth century in my data base (N = 25). The relative frequency was similar during the first 70 years of the nineteenth century: 77 percent (N = 111). I have only three documents from the rest of that century and no more documents until the 1930s, when the topicalizing enclitic appeared consistently with indefinite pronouns preceded by *he*. In other words, the indefinite pronouns beginning with *he* must have completed the transition to their modern form as part of the *hé?e ...e?* topicalizing frame sometime between 1870 and 1935.

10. SUMMARY OF PRONOMINAL CHANGES THROUGH TIME

Colonial Yucatec distinguished between two forms of the first-person plural clitic pronoun, one used before glottal-stop-initial nominal and verbal stems and the other preceding stems beginning with other consonants. They were merged into a single form, first documented during the late eighteenth century, and continuing into Modern Yucatec. The abbreviated form of the glottal-stop-initial first-person singular clitic pronoun that was common in Colonial Yucatec is not evident in Modern Yucatec, perhaps because of its potential confusion with the glottal-stop-initial second-person pronominal enclitic.

The third-person independent pronoun in Colonial Yucatec has undergone several changes, beginning with its attachment to a preposition, followed by the raising of its original vowel from [a] to [e]. The stative pronouns once ubiquitous in notarial documents vanished from the language after independence from Spain in 1821.

CHAPTER 5

TENSE/ASPECT AND MOOD

The Spanish Franciscan priests who produced grammars of Colonial Yucatec (Juan Coronel in 1620, Gabriel de San Buenaventura in 1684, and Pedro Beltrán de Santa Rosa María in 1746) described the inflection of verbs in this New World language in terms of Latin templates (Hanks 2010:207–210). Because Latin has a present tense, they assumed that Colonial Yucatec had such a tense as well, not realizing that there were no tenses in this language at all. For this reason, none of the grammars that were produced during the Colonial period are useful sources on the verbs in this language (*pace* Robertson 1992:Chapter 9).

Instead of tenses, Colonial Yucatec had a system of preposed aspectual particles and/or suffixes that indicated whether the actions referred to by the verbs had been completed (perfective) or were still in progress (imperfective). Events in the more distant past or future were marked as uncertain with subjunctive or optative suffixes. In this sense, mood was treated as part of the tense/aspect system.

The aspectual and subjunctive suffixes differed depending on whether the verb in question was transitive or intransitive and whether the verb stem was a root or derived transitive or intransitive. In fact, root transitives and intransitives represented separate form classes in this language (the other form classes were positionals, affects, nouns, adjectives, particles, and numerals).

1. ASPECTUAL VERB STEMS

1.1. INTRANSITIVE VERBS. A distinctive characteristic of intransitive verbs in both Colonial and Modern Yucatec is the use of ergative pronouns from set A for the subject with the imperfective stem and absolutive pronouns from set B for the same purpose with the perfective and subjunctive stems. This inconsistent treatment of the subjects of intransitive verbs with different aspectual stems is known as the “ergative split” in this language. Another kind of split, contrasting the use of ergative pronouns with first- and second-person subjects with the use of absolutive pronouns for third-person subjects characterized intransitive verbs in adverbial focus constructions in Colonial Yucatec (Yasugi 2005:82), but did not survive into Modern Yucatec (see **5.** below).

1.1.1. ASPECTUAL INFLECTION OF INTRANSITIVE VERBS IN COLONIAL YUCATEC. The aspectual stem suffixes of root intransitives in Colonial Yucatec were -i (perfective), -Vc (subjunctive), and -VI (imperfective) (V indicates that the vowel in the suffix was a copy of the root vowel). The following paradigm illustrates the use of the perfective suffix, -i (phonetic [-ih]), with *kuch* ‘to arrive’:

(1)	<u>Singular</u>	<u>Plural</u>
1st	*kuch-i-en 'I arrived'	kuch-i-(o)on 'we arrived'
2nd	*kuch-i-ech 'you arrived'	*kuch-i-(e)ex 'you-all arrived'
3rd	kuch-i-Ø 'he/she arrived'	kuch-i-ob 'they arrived'

By the time the Spaniards arrived in Yucatan in the middle of the sixteenth century, [i] had assimilated with the immediately following [e] in -en, -ech, and -ex of the first- and second-person suffixed pronouns. However, it can be inferred from its presence in kuch-i-Ø, kuch-i-on, and kuch-i-ob in the following examples from my documentary database:

- (2a) kuchi ua Juan ti kaknabe
'did John arrive at the sea?' (Ciudad Real 1600?: fol. 455v)
- (2b) ca kuchiob t u tancabal na ÷ay cab canule campech
'then they arrived at property of Na-÷ay Cab Canul of Campeche' (CHX-449A-C)
- (2c) vai ti kuchion t u chun v mulil tabi
'here we arrived at the base of the mound of Tabi' (YT718B-104A-B)

The same sets of suffixes occur with hul 'to arrive (here),' suggesting that these are not isolated examples:

- (3a) Melchor Canche Pedro Ucan huli
'Melchor Canche and Peter Ucan arrived here' (MA557-043)
- (3b) hek lay u kabaob al-mehenob huliob uay ti cah lae
'these are the names of the nobles who arrived here in this town' (MA557-017A-B)
- (3c) vay ti hulion t u hol ek luum t u chun vitz
'here we arrived at the entrance to the black earth at the base of the mountain' (MA733C-205A-B)

The subjunctive stem of root intransitives is marked by -Vc, where V indicates that the vowel in the suffix is a copy of the vowel in the root:

(4)	<u>Singular</u>	<u>Plural</u>
1st	cim-ic-en 'I might die'	cim-ic-(o)on 'we might die'
2nd	cim-ic-ech 'you might die'	*cim-ic-(e)ex 'you-all might die'
3rd	cim-ic-Ø 'he/she might die'	cim-ic-ob 'they might die'

Some examples of the use of these forms of cim 'to die' in context appear below:

- (5a) olac cimicen çame
'I almost died then!' (Ciudad Real 1600?: fol. 349v)
- (5b) ti ma k ohel va yx bin cimicen yn yanil tin çapahal yn yanil lae
'for we do not know if I will die from this illness of mine' (TK730C)

- (5c) bin uil cimicech tix ma-ma kin
will you die without warning? (Ciudad Real 1600?: fol. 229r)
- (5d) hij cimic Juan
'it is possible that John will die' (Ciudad Real 1600?: fol. 184r)
- (5e) maih kazacon maih cimicon achac u keban ca yax yumobe
'we would not be bad, nor would we die, if it were not for the original sin of our first fathers' (Ciudad Real 1600?: fol. 224v)
- (5f) ua ixa bici bin u cibob tin pixane
'however they treat my soul,

ba ix bin y oltic Dios y uchul t a pixanob ca bin cimicobe
God wishes it to happen to your souls when they die' (Ciudad Real 1600?: fol. 440r)
- (5g) yan bin cimicobi
'they will die' (Tizimin n.d.: fol. 21v)

The use of the subjunctive stem with the second-person plural subject is exemplified in (6) with lik 'to rise':

- (6) bin ix likicex
'and you-all will rise up' (Gordon 1913:66)

The imperfective stem of root intransitives is usually marked by -VI, in which the vowel is a copy of the root vowel, and the ergative pronouns from set A serve as subjects:

- | | | | |
|-----|-----|-------------------------------|-------------------------------------|
| (7) | | <u>Singular</u> | <u>Plural</u> |
| | 1st | in <u>ben-el</u> 'I go' | ca <u>ben-el</u> 'we go' |
| | 2nd | a <u>ben-el</u> 'you go' | a <u>ben-el</u> -(e)ex 'you-all go' |
| | 3rd | u <u>ben-el</u> 'he/she goes' | u <u>ben-el</u> -(o)ob 'they go' |

The Calepino de Motul contains numerous examples of each of these forms in context, a small sample of which appears below:

- (8a) in benel vac ti cħail
'I go wherever I am taken' (Ciudad Real 1600?: fol. 437r)
- (8b) v nah a benel
'it is advantageous for you to go' (Ciudad Real 1600?: fol. 319r)
- (8c) ma v benel Juan Pedro cix xijc
John is not going; it is better that Peter goes' (Ciudad Real 1600?: fol. 74v)
- (8d) nach y ocil licil ca benel
'we are going far away' (Ciudad Real 1600?: fol. 318r)

- (8e) va ma tan ppatbex a kebane hun-kuli a benelex mitnal
 'if you-all don't abandon your sins, you-all will go to Hell forever!' (Ciudad Real 1600?: fol. 199r)
- (8f) pim t u ba vinic lic v benelob metnal
 'many people go to Hell' (Ciudad Real 1600?: fol. 376v)

Not all root intransitives in Colonial Yucatec formed their imperfective stems by suffixing -VI to the root. The exceptions—tal 'to come,' mal 'to pass,' and hul 'to arrive (here)'—suffixed -el to the root: tal-el, mal-el, and hul-el:

- (9a) chuchuy u talelob
 'they come very slowly' (Ciudad Real 1600?: fol. 159r)
- (9b) hauex a ba licil v malel padre
 'open a path for the priest to pass!' (Ciudad Real 1600?: fol. 178r)
- (9c) halex va-bay-kin av ulelex uaye
 'announce when you-all are coming here!' (Ciudad Real 1600?: fol. 437r)

Eventually, there was an additional exception, when the [e] in ben 'to go' was raised to [i], resulting in bin 'to go' and its imperfective stem, bin-el:

- (10) tan v binel ti yan multun t u nix vitz sac nictē
 'he was going to where there was a mound on the slope of the White Flower Mountain'
 (SB596B-098-099)

The aspectual suffixes employed by derived intransitives in Colonial Yucatec were, for the most part, similar to those employed by root intransitives, except that when the derived intransitive was marked by a derivational suffix containing a vowel, the vowel in the -Vc and -VI suffixes for the subjunctive and imperfective stems was a copy of the vowel in the derivational suffix (usually schwa), rather than of the root vowel (e.g., 1.2.2.2. in Chapter 7).

1.1.2. ASPECTUAL INFLECTION OF INTRANSITIVE VERBS IN MODERN YUCATEC. The aspectual stem suffixes of root intransitives in Modern Yucatec are -ih (perfective), -Vk (subjunctive), and -VI (imperfective), corresponding exactly to their counterparts in Colonial Yucatec. Although the perfective stem suffix is still -ih, it surfaces only when the subject of the verb is in the third person, continuing a process that was already well underway during the first century of the Colonial period:

- | | | |
|------|-------------------------------------|-------------------------------|
| (11) | <u>Singular</u> | <u>Plural</u> |
| 1st | k'uč-Ø-en 'I arrived' | k'uč-Ø-ó?on 'we arrived' |
| 2nd | k'uč-Ø-eč 'you arrived' | k'uč-Ø-é?eš 'you-all arrived' |
| 3rd | k'uč- <u>ih</u> -Ø 'he/she arrived' | k'uč-Ø-ó?ob 'they arrived' |

However, -ih occurs today only when the verb appears at the end of a phrase (Blair and Vermont-Salas 1965:342):

- (12a) h tàalih
'he came'
- (12b) h tàalih máasima?
'he came, didn't he?'
- (12c) h tàalih hwàan
did he come, John?'

It does not appear in phrase-medial position (1965:342):

- (13a) h tàal_ aw éet kàahal
'your compatriot came'
- (13b) h tàal_ u šíimb'aten
he came to visit me'
- (13c) h tàal_ hwàan
'John came'

In other words, -ih has become a phrase-terminal marker in Modern Yucatec (1965:343).

The subjunctive stem of root intransitives in Modern Yucatec is identical to its counterpart in Colonial Yucatec in all contexts:

(14)	Singular	Plural
1st	kíim-ik-en 'I might die'	kíim-ik-ó?on 'we might die'
2nd	kíim-ik-eč 'you might die'	kíim-ik-é?eš 'you-all might die'
3rd	kíim-ik-Ø 'he/she might die'	kíim-ik-ó?ob' 'they might die'

An example of the use of kíim-ik in the third-person singular appears below:

- (15) tum b'in trèes ?ànyos kíimik inw íičam
'it's going on three years since my husband died' (EBT979C)

The subjunctive stems of k'uč 'to arrive,' luk' 'to leave,' ok 'to enter,' and tàal 'to come' have the same structure:

- (16a) tak ká?ah k'učuk wey tak k'íiwik
'until he arrived here at the plaza' (V. Bricker 1981a:235, line 473)
- (16b) má? ?uɣ t u t'àanó?ob'i? ká?ah luk'uk u hèenteh ?éeb'tùune?
'they did not like it that the people of Ebtun left' (CHK979)
- (16c) ká?ah túun ?òokok túun t u sèentroh e kàaho?
'that he might enter then the center of that town' (EBT979C)

- (16d) iŋ k'át ká talaké?eš
 'I want you (pl.) to come' (Blair and Vermont-Salas 1967:568).

For the most part, the imperfective stems of root intransitives in Modern Yucatec use the -VI suffix as exemplified by ?ah 'to wake up':

- | | | | |
|------|-----|------------------------------|---------------------------------|
| (17) | | <u>Singular</u> | <u>Plural</u> |
| | 1st | iŋw ah-al 'I wake up' | k ?ah-al 'we wake up' |
| | 2nd | aw ah-al 'you wake up' | aw ah-al-é?eš 'you-all wake up' |
| | 3rd | (u)y ah-al 'he/she wakes up' | (u)y ah-al-ó?ob' 'they wake up' |

An example of the use of ?ah-al in the first-person singular appears below:

- (18) tèn túune? šan inw ahal túun
 'as for me, then, also, I woke up then' (EBT979A)

The use of the imperfective stem with other root intransitives—kíim 'to die,' líik' 'to rise up,' and ?úuč 'to happen'—in Modern Yucatec is shown in (19a–c):

- (19a) kíimó?ob' b'ey u kíimil b'á?al=čé?e?
 'they died as animals die' (V. Bricker 1981a:248, lines 1059–1060)
- (19b) pwes ká?ah t ú líik'il e hèenteh t u láakal ká?ah k'ahóoltaóob'o?
 'well, when all those people who knew about it were rising up,
 t u láakal ká?ah túune?
 all of them then' (EBT979C)
- (19c) miš b'á?al k uy úučul
 'nothing was happening' (V. Bricker 1981a:247, line 1025)

As in Colonial Yucatec, the exceptions in Modern Yucatec are the imperfective stems based on Colonial ben 'to go,' hul 'to arrive (here),' mal 'to pass,' and tal 'to come,' none of which have retained their original aberrant -el suffix. benel had already become binel before the end of the Colonial period, and malel was becoming manel. Subsequently, binel became b'in, hulel became ?ú?ul, manel became máan, and talel became tàal, which are their present imperfective stems:

- (20a) k u b'in b'ey bàantáa?
 'he goes into this district' (V. Bricker 1981a:241, line 750)
- (20b) láah k u b'inó?ob' way sàantah krùuse?
 'everyone leaves Holy Cross here' (V. Bricker 1981a:234, line 449)
- (20c) t iŋw ilah uy ú?ul
 'I saw him arrive' (Blair and Vermont-Salas 1967:689)

(20d) *ç' u máan tàab'i?*
 he finished passing Tabi' (V. Bricker 1981a:234, line 446)

(20e) *leti? u tàalo?*
 'it is he who comes there' (V. Bricker 1981a:234, line 449)

1.1.3. THE PROPHETIC FUTURE MARKED BY -OM. Prophetic statements in the Books of Chilam Balam of Chumayel and Tizimin are often based on intransitive roots and stems marked by -om, instead of the subjunctive suffix, and without any aspectual head word or particle. The following prophetic passage in the Book of Chilam Balam of Chumayel (Gordon 1913:100) contains two intransitive roots, *em* 'to descend' and *el* 'to burn,' both of which are suffixed by -om:

(21) *emom u kikel che y tunich*
 'the blood of trees and stones shall descend;

elom caan y luum
 'sky and earth shall burn'¹

1.2. TRANSITIVE VERBS. As far as aspectual stem suffixes are concerned, root and derived transitives differed primarily in the form of the subjunctive suffixes they took in Colonial Yucatec. This distinction is no longer present in Modern Yucatec, where the Colonial form of the root transitive subjunctive suffix has completely disappeared, and root transitives now have the same form of this suffix as derived transitives.

1.2.1. ASPECTUAL INFLECTION OF TRANSITIVE VERBS IN COLONIAL YUCATEC. The aspectual stem suffixes of root transitives in Colonial Yucatec were -ah (perfective), -ic (imperfective), -ma (present perfect), and -Vb (subjunctive) (V indicates that the vowel in the suffix was a copy of the root vowel). The following paradigm illustrates the use of the perfective suffix, -ah (phonetic [-ax]) with *haç* 'to whip' and third-person singular direct objects:

	Singular	Plural
(22)		
1st	<i>in haç-ah-Ø</i> 'I whipped him/her'	<i>ca haç-ah-Ø</i> 'we whipped him/her'
2nd	<i>a haç-ah-Ø</i> 'you whipped him/her'	<i>a haç-ah-ex-Ø</i> 'you-all whipped him/her'
3rd	<i>u haç-ah-Ø</i> 'he/she whipped him/her'	<i>u haç-ah-ob-Ø</i> 'they whipped him/her'

An example of *haç-ah* followed by a first-person singular direct object comes from the *Calepino de Motul*:

(23) *v haçahen in xibilil t u men y aal=tñan Maria*
 'my husband whipped me because of Mary's gossip' (Ciudad Real 1600?: fol. 1r)

Several examples of -ah with other root transitives (key 'scold, berate,' *chuc* 'nab, catch,' *pat* 'form with hands, shape /wax/, mold /clay/,' *çupp* 'block road,' and *mol* 'gather, collect') and other direct objects appear below:

(24a) *v keyahen batab*
 'the leader scolded me' (Ciudad Real 1600?: fol. 244r)

- (24b) ppi otzilech t in chucahech
'oh, poor you, I caught you' (Ciudad Real 1600?: fol. 389v)
- (24c) v patahon Dios ti vinicil ti ma=balon cuchi
'God shaped us into men when we were nothing' (Ciudad Real 1600?: fol. 367)
- (24d) a çuppahex va be tal cumkal
'did you-all block the road coming from Conkal?' (Ciudad Real 1600?: fol. 112r)
- (24e) v molahob vuc xac y alatah v xelolob
'they gathered seven baskets of pieces that were left over' (Ciudad Real 1600?: fol. 213v)

-ah was also suffixed to transitive stems derived from nouns by -t (tzen-t 'support' < tzen 'food'; bo(l)-t 'pay' < bool 'payment'; and çib-t 'write' < çib 'writing'), as well as causatives derived from root intransitives by -ez (çoc-ez 'finish' < çoc 'end'):

- (25a) t in tzentah ix in yum xan
'and I supported my father also' (DZ587A-045)
- (25b) yan ix v ppax in yum in bo(l)tah tin hunal xan
'and there is the debt of my father that I alone paid also' (DZ587A-020A-B)
- (25c) ca ix t in çibtah in firma te
'and then I wrote my signature there' (DZ587B-110A-B)
- (25d) ma v çocezah
'he did not finish it' (DZ587A-076)

The imperfective suffix of root transitives was -ic (phonetic [-ik]) in Colonial Yucatec:

	<u>Singular</u>	<u>Plural</u>
(26)		
1st	in hao- <u>ic</u> -Ø 'I whip him/her'	ca hao- <u>ic</u> -Ø 'we whip him/her'
2nd	a hao- <u>ic</u> -Ø 'you whip him/her'	a hao- <u>ic</u> -ex-Ø 'you-all whip him/her'
3rd	u hao- <u>ic</u> -Ø 'he/she whips him/her'	u hao- <u>ic</u> -ob-Ø 'they whip him/her'

Some examples of the use of the imperfective stem suffix with hao 'to whip' in context appear below:

- (27a) v xuxul v hagic v mehen lay y ohel
'every day that he whips his son, he knows it' (Ciudad Real 1600?: fol. 452v)
- (27b) yan a hagic a çuplil
'do you whip your wife?' (Ciudad Real 1600?: fol. 214v)
- (27c) lay v chun licil in hagic a pucul loe
'that is the reason why I whip you: you run away' (Ciudad Real 1600?: fol. 267r)

- (27d) manan v nic v hazicen
 'there is no end to him whipping me' (Ciudad Real 1600?: fol. 327v)

-ic was also suffixed to transitive stems derived from nouns by -t (tzeec-t 'preach, correct, punish' < tzeec 'punishment, correction, penance, penitence') and causatives derived from root intransitives by -(e)ç (cim-ç 'kill' < cim 'die'; kah-ç 'remind, mention, invoke' < kah 'remember'; oc-ç 'introduce, insert' < oc 'enter'):

- (28a) t u tzecticoon tac sipil xan
 'he punishes us for our sins also' (MID567:fol. 365, lines 28–29)
- (28b) he ix ma haalil cie yan ix v cimçic vinic
 'as for pure wine without water, it must kill a man' (Ciudad Real 1600?: fol. 215v)
- (28c) coon ca kahçicob sansamal hab la
 'it is we who remind them daily this year' (MID567:fol. 365, lines 19–20)
- (28d) lic ix y ocçic ha t u holob ca mehenob
 'and he usually baptizes our children' [literally, 'and he usually introduces water on the heads of our children'] (MID567:fol. 366, lines 32–33)

The present perfect aspect was marked by -ma with both root and derived transitives in Colonial Yucatec. The Calepino de Motul contains a few examples of the use of this suffix with transitive roots (çio 'to desire,' mach 'to seize by the hand,' mach 'to calm, chill, benumb,' and nac 'to bore, bother'):

- (29a) a hach çioma va a tohcabte a keban
 'have you greatly desired to confess your sins?' (Ciudad Real 1600?: fol. 106r)
- (29b) v machmaob cuchi
 'they have seized them by the hand then' (Ciudad Real 1600?: fol. 285v)
- (29c) v machmaech ceel
 'the cold has benumbed you' (Ciudad Real 1600?: fol. 285v)
- (29d) v machmaen ceel
 'the cold has benumbed me' (Ciudad Real 1600?: fol. 285v)
- (29e) v nacmaen baxal
 'playing has bored me' (Ciudad Real 1600?: fol. 316r)

It also contains a handful of examples of the use of -ma with derived transitive stems, among them naat 'to understand' and ohel 'to know /something/':

- (30a) in naatma yaabil in pay tech
 'I have understood that I owe you much' (Ciudad Real 1600?: fol. 324v)

- (30b) ma c ohelma va bal ti olil licil u mentabal
'we have not known for what reason it is being done' (Ciudad Real 1600?: fol. 349r)
- (30c) ma bal y ohelma
'he has known nothing' (Ciudad Real 1600?: fol. 345r)
- (30d) vohelmaech
'I have known you' (Ciudad Real 1600?: fol. 345v)

The subjunctive or optative mood in Colonial Yucatec was expressed by suffixing -Vb to root transitive stems, -Ø to causative stems, and -e to transitives derived from nouns (McQuown 1967:232). The vowel in -Vb was usually a copy of the vowel in the transitive root:

- (31a) bin a pay-ab ah canan colob ti doctrina ti hun-hun=vazil
'you will call the guardians of the field to catechism from time to time' (Ciudad Real 1600?: fol. 198v)
- (31b) mex tan in key-eb
'I won't scold you-all' (Ciudad Real 1600?: fol. 244r)
- (31c) he cuch-teelbil cahe v nah v tzic-ib v chun u tñan
'as for the subject town here, it should obey its chief' (Ciudad Real 1600?: fol. 87r)
- (31d) bin a ppo-ob a nok çamal
'you will wash your clothes tomorrow' (Ciudad Real 1600?: fol. 257v)
- (31e) bin in mux-ub v bal in ba ca in çijb ti y otoch ku
'I will liquidate my possessions and offer them to the church' (Ciudad Real 1600?: fol. 314r)

However, -Vb was realized as -ab when suffixed to il 'to see':

- (32a) v ppatahen ti bay hi maac y ohelen bin u ppatbech ti bay hi ma bahun y il-ab-ech
'he abandoned me as though he did not know me, and he will abandon you as though he had never seen you' (Ciudad Real 1600?: fol. 419r)
- (32b) bicx hi a tñan ca av il-ab y ichintic naranjas v cheel on
'what would you say if you see that an avocado tree bears oranges?' (Ciudad Real 1600?: fol. 184v)
- (32c) ma a benel ti ma au il-ab-en ti ma a hanal t u hoppol
'don't go without seeing me or without eating first!' (Ciudad Real 1600?: fol. 422v)

These examples suggest that -Vb was originally -ab or, more likely -əb, the schwa having been more susceptible to copying (V. Bricker and Orie 2014).

The subjunctive suffix of causative transitives was -Ø in Colonial Yucatec:

- (33a) ma chaanen in cambez Juan
'I cannot teach John' (Ciudad Real 1600?: fol. 137r)

- (33b) a nah va a oyez Juan
'will you dare to overcome John?' (Ciudad Real 1600?: fol. 319r)
- (33c) bin v manez ichil v tzeec v talanil man=kinal
'he will discuss in his sermon the mysteries of the festival' (Ciudad Real 1600?: fol. 407r)
- (33d) ma tan y ocez ti y oli
'he doesn't believe it' (Ciudad Real 1600?: fol. 300r)
- (33e) cunx ca a takanez hanal
'it would be good if you would let the food ripen!' (Ciudad Real 1600?: fol. 404v)
- (33f) ma y oklal a mananil vaye binil in tubezex
'it is not because you are not here that I will forget you-all' (Ciudad Real 1600?: fol. 295r)

The subjunctive stems of transitives derived from nouns and adjectives by -t were marked by -e (phonetic [-eh]):

- (34a) ma bahun in cibte hun tech
'I never wrote a letter to you' (Ciudad Real 1600?: fol. 129v)
- (34b) a kati au atante Maria
'you want to marry Mary' (Ciudad Real 1600?: fol. 37v)
- (34c) olac ma in naate
'I almost did not understand it!' (Ciudad Real 1600?: fol. 349v)
- (34d) va bin xijc vinic ti caane bin v matante hun-kul cici-olali
'if the man goes to heaven, he will receive eternal bliss there;

heuac va bin xijc mitnale hun-kul num-ya bin v matantei
but if he goes to Hell, he will receive eternal misery there' (Ciudad Real 1600?: fol. 300r)

1.2.2. ASPECTUAL INFLECTION OF TRANSITIVE VERBS IN MODERN YUCATEC. The aspectual stem suffixes of both root and derived transitives in Modern Yucatec are -ah (perfective), -ik (imperfective), -mah (present perfect), and -eh (subjunctive). The subjunctive suffix -eh is the one that occurred only with transitives derived from nouns and adjectives in Colonial Yucatec, but it has come to replace -Ø with causative stems and -Vb with root transitive stems.² However, it surfaces only when the verb appears at the end of a phrase with the third-person singular form of the direct object (Blair and Vermont-Salas 1965:251–252). Furthermore, because of the recent merger of velar and laryngeal “h” into phonetic [h] (see 2.1.1. in Chapter 2 and Orié and V. Bricker 2000), both the perfective and present perfect suffixes now end in [h]: [-ah] and [-mah].

The following paradigm illustrates the use of the perfective suffix, -ah, with ?il ‘to see’:

- | | | |
|------|--|--|
| (35) | <u>Singular</u> | <u>Plural</u> |
| 1st | t iqw il- <u>ah</u> -Ø ‘I saw him/her’ | t ?il- <u>ah</u> -Ø ‘we saw him/her’ |
| 2nd | t aw il- <u>ah</u> -Ø ‘you saw him/her’ | t aw il- <u>ah</u> -é?eš-Ø ‘you-all saw him/her’ |
| 3rd | t uy il- <u>ah</u> -Ø ‘he/she saw him/her’ | t uy il- <u>ah</u> -ó?ob-Ø ‘they saw him/her’ |

Some examples of the use of ?ilah with the clitic subject pronouns appear below:

- (36a) té?e čéen miš máak t inw ilah
 'not even a single person did I see there' (V. Bricker 1981a:235, line 480)
- (36b) máaš k uy á?alik b'á?áš t aw ilah
 'who would say what you saw' (V. Bricker 1981a:251, line 1219)
- (36c) ká?ah t uy ilah té?e béentanáa?
 'and he saw it there in this window' (EBT979B)

The following examples illustrate the use of -ah with other transitive stems, both root and derived:

- (37a) la ká?ah t u čukah dōoseh
 'then it reached twelve' (EBT979A)
- (37b) mīin miš hum p'éel k'ohá?anil t u č'áah tí?ob' yah hmm
 'I don't think a single illness gave them pain' (EBT979B)
- (37c) t u láah kīinsah le máakóo?
 'they murdered all those people' (EBT979C)
- (37d) t u mēen y ohéeltah
 'because he learned of it' (V. Bricker 1981a:230, line 263)

However, in fast speech, -ah may disappear before the terminal deictic, i?, that closes a negative frame introduced by má? 'not,' as in (38a), or before a pronominal suffix like -en 'me,' as in (38b) below:

- (38a) má? t inw á?al_i? o? tíiyoh
 'isn't that what I said, Uncle?' (EBT979C)
- (38b) peroh má? t u kanáant_eni?
 'but he did not help me' (EBT979A)

The imperfective suffix, -ik, refers to actions that have not been completed in the present, the past, and the future. Its use with the clitic pronouns and ?il 'to see' is shown in the paradigm below:

	Singular	Plural
(39)		
1st	k iŋw il- <u>ik</u> -Ø 'I see him/her'	k ?il- <u>ik</u> -Ø 'we see him/her'
2nd	k aw il- <u>ik</u> -Ø 'you see him/her'	k aw il- <u>ik</u> -é?eš-Ø 'you-all see him/her'
3rd	k uy il- <u>ik</u> -Ø 'he/she sees him/her'	k uy il- <u>ik</u> -ó?ob'-Ø 'they see him/her'

Some examples of the use of ?ilik appear in context below:

- (40a) má? k aw ilikó?ob' teč
 'you didn't see them' (V. Bricker 1981a:233, line 406).

(40b) k uy ilik b'is uy úučul ti? e hèentéo?
'he observed what was happening to those people' (V. Bricker 1981a:252, lines 1257–1258)

(40c) táan k ?ilike? liibreh ?aniló?on
'we are seeing that we are free' (V. Bricker 1981a:248, lines 1042–1043)

Additional examples of the imperfective suffix, this time with other transitive stems, both root and derived, appear in (41a–i):

(41a) k u huč'ik tí? ka?
'she ground it on a grinding stone' (EBT979A)

(41b) k u k'ub'ik kàaha? ká?ah ší?ik
'he turned over this town and left!' (V. Bricker 1981a:239, lines 671–672)

(41c) hé?eš k inw á?alik tečo?
'as I tell you' (V. Bricker 1981a:243, line 828)

(41d) ti? k aw ú?uyik u péeki?
'there you feel it move' (EBT979B)

(41e) b'á?aš k u b'èetik
'what is he doing?' (V. Bricker 1981a:231, line 315)

(41f) b'ey k u tàasik
'so he brought it' (V. Bricker 1981a:237, line 588)

(41g) k inw áantik túun té?e hùuč' b'eya?
'I helped her then there with the corn dough like this' (EBT979A)

(41h) pwes té?e k in kaštik u láak' màas in čan séentabói?
'well, there I found a few more pennies' (EBT979A)

(41i) tun mèentik hum p'éel nuši? káalderoh sa? k'ú?um b'eya?
'she was making a large pot of maize gruel like this' (EBT979A)

As in Colonial Yucatec, the present perfect aspect is signalled by -mah with both root and derived transitives in Modern Yucatec. The following paradigm illustrates its use with ?il 'to see' and the direct object suffixes:³

(42)	Singular	Plural
1st	uy il-mah-en 'he/she has seen me'	uy il-mah-ó?on 'he/she has seen us'
2nd	uy il-mah-eč 'he/she has seen you'	uy il-mah-é?eš 'he/she has seen you-all'
3rd	uy il-mah-Ø 'he/she has seen him/her/them'	uy il-mah-ó?ob' 'he/she has seen them'

Examples of this construction with other transitive verbs appear below:

- (43a) le a ?éenemiigoh u k'almah u pàač a kàahal
'this enemy of yours has besieged your town' (V. Bricker 1981a:250, lines 1163–1164)
- (43b) le sú?uk u kučmaho?
'that hay that he has carried' (after Andrade 1940:3.2.1.)

The subjunctive suffix for root transitives in Colonial Yucatec, -Vb (phonetic [-Vb']), has not survived into Modern Yucatec. Instead, root transitives now employ the same subjunctive suffix as derived transitives: -eh. However, -eh appears only when the suffixed pronoun is -Ø:

- | | | | | |
|------|-----|--|--|---|
| (44) | | <u>Singular</u> | | <u>Plural</u> |
| | 1st | uy il-Ø-en 'he/she might see me' | | uy il-Ø-ó?on 'he/she might see us' |
| | 2nd | uy il-Ø-eč 'he/she might see you' | | uy il-Ø-é?eš 'he/she might see you-all' |
| | 3rd | uy il- <u>eh</u> -Ø 'he/she might see him/her' | | uy il-Ø-ó?ob' 'he/she might see them' |

A further restriction on the occurrence of -eh today is that the transitive verb in question must be at the end of the phrase:

- (45a) tak u walkila? miš b'á?al k ?ileh
'until now, we have seen nothing' (V. Bricker 1981a:248, lines 1040–1041)
- (45b) t in kaštah k'íinah ?'àakó?ob' b'ey inw uk'eh
'I searched for strong medicines so that I could drink it like so' (EBT979B)
- (45c) k'ab'éeh túun b'ey máaš y òohl u ?'akeh
'someone is needed then, who knows how to cure like this' (EBT979B)
- (45d) kén a Č'úuyeh k a páasmartik
when you lift it off, you chill it' (EBT979A)
- (45e) t u mèn wáah má? uy oheh šòok máake? pwes lelo? helá?an kén u mèenteh
Because if someone does not know how to read, well that one, he will behave differently' (CHK979)
- (45f) k in tàal in šíimb'ateh
'I come to visit him' (Blair and Vermont-Salas 1965:251)
- (45g) iŋ k'áat in maneh
'I want to buy it' (Blair and Vermont-Salas 1965:251)

The last two examples can be contrasted with those in (46a–b), where the verbs man 'to buy' and ?áant 'to help' do not occur at the end of the phrase and therefore do not have -eh suffixed to them:

- (46a) kim b'in iŋw áant_ iŋw éet tàal
'I go to help my companion' (Blair and Vermont-Salas 1965:251)

- (46b) máʔ in k'áat in man_ le b'áʔalóʔob'oʔ
 'I don't want to buy those things' (Blair and Vermont-Salas 1965:251)

The same is true of the causative transitive b'i(n)s 'to take' in the next example:

- (47) wáah t u manah un ryáal e kàašoʔ kén u b'is_ wáah kóʔoh
 'if he bought that chicken for one silver coin, he would take it even if it was expensive' (EBT979C)

A comparison of the example in (47) with those in (33a–f) suggests that the -eç/-ez causative suffix of Colonial Yucatec has been reduced to -s in Modern Yucatec. The process was already underway in the imperfective stems of causative transitives during the sixteenth century (see the examples of *v cimçic*, *ca kahçicob*, and *y ocçic* in [28b–d]), but had not yet affected the subjunctive stems of causative transitives at that time. The imperative, *sáʔates ten* 'excuse me!', in Modern Yucatec (V. Bricker et al. 1998:243) represents a rare holdover from early Colonial times.

1.2.3. SEMANTIC IMPLICATIONS OF ASPECTUAL AND MOOD SUFFIXES. For the most part, the subjunctive verb stems in (45a–g), (46a–b), and (47) appear in subordinate clauses, which represents a common role of the subjunctive in Yucatecan Maya grammar. But a comparison of such clauses with the use of imperfective stems in similar contexts suggests that aspectual suffixes have broader semantic implications that are important to speakers of the language.

In complement constructions, the transitive complement normally has a subjunctive suffix, as is the case in the examples mentioned above. However, one of the historical texts I taperecorded in Hocaba during the summer of 1971 contains a sentence in which the transitive complement takes the imperfective suffix, -ik, instead of the subjunctive suffix -eh (V. Bricker 1979c:30, line 11, 1981b:97):

- (48a) pwes k u tàal u mol-ik-Ø
 'pues viene recogiéndolo'
 'well, he comes gathering it'

In (48a), I have provided both the Spanish translation of this sentence that was given to me when I questioned its grammaticality and my English translation of the Spanish gloss. In (48b) appears another version of this sentence, in which -eh has replaced -ik, with corresponding adjustments in the Spanish and English glosses:

- (48b) pwes k u tàal u mol-eh-Ø
 'pues viene a recogerlo'
 'well, he comes to gather it'

This minimal pair highlights the difference in meaning between the two suffixes: -ik has a gerundial meaning that indicates that the action denoted by the complement occurs at the same time as the action denoted by the main verb, whereas -eh has a purposive or optative meaning that indicates that the action denoted by the complement may take place after the action denoted by the main verb. Thus, both suffixes have temporal significance, -ik indicating the simultaneity of two events ("coming" and "gathering") and -eh indicating that they may be sequential ("coming," followed by "gathering").

There is, then, a multi-dimensional contrast among aspectual suffixes in Yucatecan Maya: (1) the distinction between actions that have been completed versus those that are ongoing (-ah versus -ik) and

(2) the distinction between actions that are simultaneous versus those that are sequential (-ik versus -eh). However, these are not the only distinctions necessary for understanding the relationship between the aspectual system and mood in Yucatecan Maya. Other, finer discriminations based on the imperfective and subjunctive stems are borne by aspectual head words and clitic particles, which are discussed in 2. below.

2. ASPECTUAL HEAD WORDS AND CLITIC PARTICLES

Only three of the four aspectual stems described in 1. co-occur with aspectual head words and clitic particles (the perfective, imperfective, and subjunctive stems). The fourth—the present perfect stem, marked by -ma—does not and will not be considered further in this chapter.

2.1. ASPECTUAL CLITIC PARTICLES ASSOCIATED WITH THE PERFECTIVE STEM. The perfective stems of root and derived transitives and intransitives could be used alone or with the clitic particle *t(i)* in Colonial Yucatec. The use of the clitic particle was not optional with perfective stems. It had a temporal significance, but exactly what that meaning was and how it contrasted with the perfective stems that occurred without that particle cannot be determined from an examination of example phrases and sentences in the *Calepino de Motul* and other Colonial dictionaries, nor from the treatises of Colonial grammarians. It requires a broader context that can only be provided by a consideration of their use in narrative texts written by native speakers of the Maya language with interests of their own other than providing example sentences and phrases for dictionaries and grammars.

2.1.1. THE FUNCTIONAL DIFFERENCE BETWEEN T(I)- AND Ø-PERFECTIVE STEMS. According to the Franciscan grammarian, Gabriel de San Buenaventura (1684:112, 266), the temporal reference of perfective verbs governed by *t(i)* is a single day, designated as “today” ([h]oy) in Spanish glosses. Although neither of the Maya expressions for “today” (*yual* and *hele la*) appears in his examples of such constructions, the Spanish word for “today” shows up in his glosses of those constructions:

(49a) *Pedro ṭ u cimçah vinic*
 ‘Pedro matò *oy* á un hombre’
 ‘Peter killed a man today’ (1684:112)

(49b) *ṭ in hacah paal*
 ‘*oy* açotè al muchacho’
 ‘today I whipped the boy’ (1684:267)

(49c) *ṭi bini padre*
 ‘el padre se fue *oy*’ (1684:267)
 ‘the priest went today’

The same is true of some expressions of this kind in the *Calepino de Motul*, for example:

(50a) *ṭi valah teex tilob vahi ṭ a c̣haex*
 ‘dixeos lo *oy* mas no lo tomastes’
 ‘I told you-all that today, but you-all did not take it’ (Ciudad Real 1600?: fol. 438v)

- (50b) t̥ u talçah v kin padre
 'traxo oy nueuas de que venia el padre'
 'he brought news today that the priest was coming' (Ciudad Real 1600?: fol. 407v)
- (50c) t̥ in hel-pachtah haa ti be
 'escapeme oy del agua'
 'I escaped from water on the road today' (Ciudad Real 1600?: fol. 183r)
- (50d) ɔeɔ ma ti vilah haa ti be
 'por poco no me moje oy en el camino'
 'I barely missed becoming wet on the road today' (Ciudad Real 1600?: fol. 129r)

There are, however, numerous exceptions to this generalization in the Calepino:

- (51a) t̥ in hel-pachtah ceh
 'dexe atras el venado'
 'I left the deer behind' (Ciudad Real 1600?: fol. 183r)
- (51b) t̥ u hel-pachtahen ceh
 'dexome a mi el venado atras'
 'the deer escaped from me' (Ciudad Real 1600?: fol. 183r)
- (51c) nocaanen ca ti luben
 'yo cay boca abaxo de buzas'
 'I was upside down when I fell' (Ciudad Real 1600?: fol. 329r)
- (51d) t̥ in hechah v halal in nup
 'rebati la flecha de mi contrario'
 'I repelled the arrow of my enemy' (Ciudad Real 1600?: fol. 180v)
- (51e) t̥ in ppatah in bat chepe
 'o pobre de mi que he perdido mi hacha'
 'oh, poor me! I have lost my axe' (Ciudad Real 1600?: fol. 140v)
- (51f) t̥ in bonlah in çuyem
 'he teñido mi capa'
 'I have dyed my cloak' (Ciudad Real 1600?: fol. 55v)

Furthermore, the Calepino contains a pair of contradictory examples suggesting that the perfective stems that are not accompanied by t(i) are the ones that refer to more recent time in the past:

- (52a) napul(a)cen valab missa ca ti kuchen ti cah
 'luego como oy llegue al pueblo dixé missa'
 'then upon arriving in the town today, I said Mass' (Ciudad Real 1600?: fol. 324r)
- (52b) napulahen ti missa ca __ kuchen ti cah
 'pero no habla de antes de oy'
 'but it does not speak of before today' (Ciudad Real 1600?: fol. 324r)

The Spanish phrase in (52b) is a comment, not a gloss, recognizing that this perfective expression without *t(i)* does not refer to a time before today. As such, it implies that it is such expressions without *t(i)* that refer to the more recent and bounded time. The first part of the Maya sentence in (52b) is probably incomplete, but the second part refers to the subject's arrival in the town, which the "gloss" says must be today because it cannot be before today, even though *t(i)* is not present before *kuchen*.

The examples in (51a–f) and (52a–b) present a confused picture of the relationship between the two uses of the perfective stem. Not only do the examples in (51a–f) lack [*h*]oy 'today' in their Spanish glosses, but the translations are inconsistent in their use of the Spanish preterite for (51a–d) and the Spanish present perfect for (51e–f). Possibly in response to such examples, especially the conflicting examples in (52a–b), Ortwin Smailus (1989:41) came to a different conclusion in his modern grammar of Colonial Yucatec, which he illustrates with the following didactic examples:

- (53a) *in cambezah-ech*
'te enseñé'
'I taught you'
- (53b) *t̄ in cambezah-ech*
'te enseñé hace tiempo'
'I taught you long ago'

In his view, *t(i)* refers to an event in the remote past, not one limited to the current day, which is exactly the opposite of the view espoused by San Buenaventura (1684:112, 267) and followed, with a few exceptions, by the *Calepino de Motul*.

The inconsistency in the use of the Spanish preterite and present perfect tenses in glossing the verbs in (51a–f) suggests that the compilers of the *Calepino de Motul* did not have a clear idea of how such expressions should be translated. In fact, the 94 sentences containing perfective verbs governed by *t(i)* in the *Calepino* are equally divided between those in which the Spanish gloss employs the preterite and those glossed with the present perfect (see Table 5-1).

The same inconsistency in the use of the present perfect can be found in the glossing of perfectives governed by $\emptyset$:

- (54a) *_ a bo(l)tah xin a ppax*
'has por uentura pagado tus deudas'
'have you paid your debts?' (*Ciudad Real* 1600?: fols. 54v-55r)
- (54b) *_ in bo(l)tah in ppax ca _ huli Pedro*
'pague mis deudas quando vino Pedro'
'I paid my debts when Peter arrived' (*Ciudad Real* 1600?: fol. 58v)

Table 5–1. A comparison of the frequencies of the use of *ti*- and $\emptyset$ -perfective stems for translating the Spanish preterite and compound indicative and subjunctive verbs into Maya.

	Pret	PresPerf	PluPerfIndic	PluPerfSubj	ImpfSubj	Total
Ti	47	46	1	0	0	94
$\emptyset$	572	47	5	8	3	635
TOTAL	619	93	6	8	3	729

- (54c) _ v nabinah v cimil Juan
 'fue culpado en la muerte de Juan'
 'he was implicated in John's death' (Ciudad Real 1600?: fol. 315v)
- (54d) _ in hahcunah in than y okol Juan
 'atestigue yo contra Juan'
 'I testified against John' (Ciudad Real 1600?: fol. 172v)
- (54e) _ in pulah in keban t in pach
 'oluide y dexo mis pecados'
 'I forgot and left my sins behind' (Ciudad Real 1600?: fol. 385v)
- (54f) haili Noe y etel v balnailob _ puci ca _ vchi hay=cabale
 'solamente Noe y su familia se escaparon y libraron quando el diluuio'
 'only Noah and his family escaped when the flood occurred' (Ciudad Real 1600?: fol. 383r)
- (54g) lay vaxac tzuc pixanilob _ y alah c ah lohil t u cambeçah vinicilob
 estas ocho bien auentruanças dixo nuestro redemptor a sus discipulos'
 'these eight beatitudes Our Savior told his disciples' (Ciudad Real 1600?: fol. 377v)

In those cases, however, the overwhelming majority of the Ø-perfectives are glossed in terms of the preterite (574 versus 61) (see Table 5-1).

The inconsistency in the assignment of the preterite and the present perfect to the t(i)- and Ø- perfectives is part of a larger problem, namely that Colonial Yucatec had another stem for the present perfect of transitives, marked by -ma, that is still in use today (see 1.2.1. above). Glossing either or both the t(i)- and Ø-perfectives as present perfect when there was already a well-documented present perfect in the language makes it unlikely that a solution to the problem can be found in the Calepino de Motul.

I suspect that the source of the problem lies in the likelihood that much of the Calepino is a reverse translation of an original Spanish-to-Maya dictionary like the closely related Bocabulario de Maya Than / Vienna (ca. 1570). This is certainly the case with sentences drawn from the Old and New Testaments (e.g., [54f–g]) and other religious sources like catechisms and sermons (e.g., [54e]). For a native Maya speaker, whose language did not have tenses, the task of rendering such sentences into Maya must have been challenging.

If, indeed, the problem was one of having to translate Spanish sentences into Maya (rather than vice versa), then the Maya translator seems to have had great difficulty with the Spanish compound tenses, especially the present perfect as described above, but also the Spanish pluperfect indicative (6 examples) and pluperfect subjunctive (8 examples), of which fourteen examples were treated as Ø-perfectives and only one as a ti-perfective. There are also three examples of the imperfect subjunctive that were treated as Ø-perfectives in the Calepino de Motul (see Table 5-1).

A possible solution to the opposing interpretations of the distinction between t(i)- and Ø-perfectives can be found in three documents of sixteenth-century date. The first, which bears a date of 16 March 1569, contains a history of the migration of a lineage founder named Na c'ul Pox (Figure 5-1):

- (55) hex na c'ul pox lae ych cah Mayapan
 and this Na c'ul Pox here, from the town of Mayapan

u talel ca _ u hec'ah lum Chichican
 he was coming when he settled the land at Chichican

ca t'i liki Chichican ca __ bini Tinum
 when he left Chichican, then he went to Tinum' (DZ569-025-029)

Three events are mentioned in this passage: (1) his founding of a settlement at Chichican after leaving Mayapan; (2) his subsequent departure from Chichican at an unspecified date, followed by (3) his arrival at Tinum. The clitic particle associated with the earliest of the three events is Ø; the one for the second event is t'i; and the one for the most recent event is Ø.

Elsewhere in the document we are told that Na c'ul Pox died with Ah Pul Ha, an event that took place in 1537, according to the Chronicle of Oxkutzcab (H. Bricker and V. Bricker 2011:79, Table 4-1). This means that the founding of Chichican and its abandonment some years later must have occurred more than three decades before 1569, when the document from which the quoted passage is taken was written and notarized before multiple witnesses. And because the second sentence in (55) states that Na c'ul Pox left Chichican before going to Tinum, the t'i in ca t'i liki Chichican cannot refer to an event more recent in time than the Ø in Ø bini Tinum.

The second document that has a bearing on this issue concerns a dispute between Diego Pox of Dzan, a descendant of Na c'ul Pox in the puuc region of Yucatan, and his siblings over the division of property from their father, who died intestate. In this document, dated to 1587, Diego Pox mentions in two places that he paid his father's debts. There is no t(i) particle in either sentence:

(56a) yan ix v ppax in yum __ in bo(l)ta'h t in hunal xan
 'and there is the debt of my father that I alone paid' (DZ587A-020A-B)

(56b) y oklal t in hunali __ in bo(l)ta'h v ppax in yume
 'because I alone paid the debt of my father' (DZ587A-039A-B)

He then goes on to say that he supported his father, this time with the t(i) particle:

(56c) t in tzenta'h ix in yum xan
 'and I supported my father also' (DZ587A-045)

The implication is that he supported his father while his father was alive, not just for a single day, which suggests that the t(i) particle had the function of signalling a more distant time, perhaps earlier than the occasion on which he paid his father's debt.

The third example shows that the perfective stem without t(i) could refer to recent time and specifically to a single day. The earliest provenienced document in Yucatecan Maya is the Crónica de Mani, which describes a survey of the boundaries of the Province of Mani that began on 15 August 1557. Immediately following the date is a long sentence recording the gathering together in Mani of the leaders of all the towns in the province, as well as leaders from towns in the adjoining provinces, for the purpose of placing markers at various places along the boundary of the province (Figure 5-2):

(57) __ v hu=molcinah v baob halach vinic Don Fran^{co} de Montejó Xiu
 'they gathered together, Don Francisco de Montejó Xiu,

gouernador vay ti cah y etel t u cuch-cabal Tutul Xiu
the governor here in the town and in the province of Tutul Xiu,

y etel almehen Don Fran^{co} Che gouernador Ticul ...
and the noble, Don Francisco Che, governor of Ticul, etc.' (MA557-001E-K)

The verb, *v hu*=molcinah, is a perfective transitive that is not preceded by *t(i)*. Because it immediately follows a reference to the date on which the event took place and the document was penned not long after the survey took place, it cannot imply that the event took place long ago. Perhaps for the same reason, none of the other perfective verbs in that early document are associated with *t(i)* either.

These examples support Smailus' claim that perfective stems associated with the clitic particle *t(i)* referred to completed actions that took place earlier in time than those without it. However, it is not clear that the earlier of two events distinguished in this way should be described as having taken place "long ago." Perhaps "a while ago" or "some time ago" would be closer to the mark.

2.1.2. HISTORICAL CHANGE IN ASPECTUAL CLITIC PARTICLES ASSOCIATED WITH THE PERFECTIVE STEM.
In Colonial Yucatec, the vowel in *ti* usually assimilated to the vowel in the clitic pronoun before transitive perfective stems:

- (58a) *t in* bilah in nok
'he repulgado mi ropa'
'I have hemmed my clothes' (Ciudad Real 1600?: fol. 52r)
- (58b) *t a* kamah va a chij
'por uentura haste desaiunado'
'have you eaten breakfast yet?' (Ciudad Real 1600?: fol. 237r)
- (58c) *t u* lezah y it sarten miztun
'lamio el gato el suelo de la sarten'
'the cat licked the bottom of the frying pan' (Ciudad Real 1600?: fol. 266v)
- (58d) *tac* caah ti
'ya se lo emos dado'
'we have already given it to him' (Ciudad Real 1600?: fol. 122r)

In (58d), the vowel in *ca* 'we' has first metathesized with *c*, before assimilating with the vowel in *ti*.

No such changes occurred when *ti* preceded intransitive perfective stems because the ergative split resulted in the subject pronouns being suffixed to those stems:

- (59a) lay vot olah ca *ti* hulen vaye
'a esto he venido aqui; esta fue mi consideracion'
'this I considered when I arrived here' (Ciudad Real 1600?: fol. 352v)
- (59b) bahunx v mek hachil ca *ti* bini_
'quanto cacao, o ettz embio el suegro a su consuegro'
'how much cacao went from the father-in-law to the father of his son-in-law?' (Ciudad Real 1600?: fol. 303v)

By the end of the Colonial period, Ø- had disappeared, leaving only ti- as the aspectual clitic particle associated with the perfective stem. And eventually ti- was reduced to t- before all perfective verb stems, both transitive and intransitive. In the meantime, the two forms of the first person plural clitic pronoun had merged, with c (phonetic [kə]) replacing ca (phonetic [ka]) as the ergative pronoun before all verbs. This change meant that tac dropped out of use in such contexts, resulting in an apparent triconsonantal cluster composed of tc plus the initial consonant of the verb. This cluster was reduced by deleting the consonant of the clitic pronoun but retaining the schwa to separate the aspectual clitic from the consonant that followed. Thus, t c conah ‘we sold it’ and t c ɔaah became t conah (phonetic [tə konah]) and t ɔaah (phonetic [tə ɔ’áah]), respectively, as in:

(60a) bay bic c tial bal ṭ conahe
 ‘thus how what we sold was ours’ (DZ791A-015A-B)

(60b) he ix bahun ṭ conah kax lae
 ‘and here is how much we sold this forest for:

hun kal peso cata[c] ox pel peso lae
 these 20 pesos plus 3 pesos’ (PS791A-016A-B)

(60c) chen y oklal ma ṭ ɔaah y ohel u binel yn yum just.^{as} ti hoi
 ‘it is only because we did not let him know that my lord justices
 were going to Merida (HB783A-814A-C)

The same process can be found in Modern Yucatec today:

(61a) tí? ṭ kanahi?
 ‘we learned it there’ (Blair and Vermont-Salas 1965:52)

(61b) má? ṭ ʔúʔuyahi?
 ‘we didn’t hear it’ (Blair and Vermont-Salas 1965:54)

The reduction of ti- to t- had a different result with intransitive perfective stems, where the subject pronouns were suffixed to the verbs and therefore did not provide vowels for resolving consonant clusters. My documentary database contains a few examples of t before perfective intransitive stems, beginning in 1798 (62a) and continuing into the middle of the nineteenth century (62b–c):

(62a) la u chun ṭ binon c heb u pach
 ‘this is the reason why we went to divide the field’ (EBT798B)

(62b) ṭ binooob y icnal ca t bin_ lay yum curao
 ‘they went with him when that father priest went’ (TKX848A)

(62c) t u 23 u xocol u mesil marzo
 ‘on the 23rd of the count of the month of March

ca ṭ kuch_ a tropaooob ti in cahal chan santa cruz
 was when your troops arrived in my town of Chan Santa Cruz’ (CRZ851E)

What eventually happened is that *t*, being a relatively weak consonant, was reduced to an even weaker consonant [h], or it disappeared altogether:

- (63a) *h k'uč a k'ik šan y éetel uy íičam*
'your sister arrived also with her husband' (Blair and Vermont-Salas 1965:363)
- (63b) *_ tàal a k'ik šan y éetel uy íičam*
'your sister came also with her husband' (Blair and Vermont-Salas 1965:363)
- (63c) *téek _ b'inih*
'he went immediately' (V. Bricker et al. 1998:273)
- (63d) *h tàalen*
'I came' (Blair and Vermont-Salas 1965:343)
- (63e) *_ tàal u č'oten š ʔòop b'ehláʔeʔ*
'Ophelia came to shake me down today' (V. Bricker et al. 1998:87)

In a sense, then, the inflection of intransitive perfectives has come full circle, back to the use of a $\emptyset$ -aspectual clitic that represented one of two options in Colonial times. However, although there are still two clitic particles associated with perfective stems, one with transitives (*t*) and the other with intransitives (*h*/ $\emptyset$), they both have the same function, namely that of marking the actions referred to by the verb as completed, without temporal specification. And in that respect they do not have the same ambiguities as the ones that confused the Franciscan grammarians during the Colonial period.

2.2. ASPECTUAL HEAD WORDS AND CLITIC PARTICLES ASSOCIATED WITH THE IMPERFECTIVE STEM. In contrast to the perfective stem, which refers to an action as a whole, the imperfective stem is used for referring to actions in the past, present, or future that are incomplete, habitual, or beginning, ending, or in progress. This information is conveyed by head words that are drawn from several form classes: root intransitives, nouns, and particles.

Discrete parts of an action—its beginning, middle, and end—were referred to by three head words in Colonial Yucatec, representing the inceptive, durative, and terminative aspects. The head word for the inceptive aspect was the root intransitive *hopp* (phonetic [hóʔop]) 'to begin,' that was itself inflected for perfective aspect as *hoppi* 'it began.' The durative aspect was indicated by the particle *tan* (phonetic [táan]). And the terminative aspect was signalled by the root intransitive, *ɔoc* (phonetic [ʔ'óʔok]) 'to finish,' that, like *hopp*, was inflected for the perfective aspect as *ɔoci* 'it finished.' Some examples of the use of these head words with transitive imperfective stems appear below:

- (64a) *hoppi in cantic*
'I began to relate it' (Ciudad Real 1600?: fol. 200r)
- (64b) *bay bic tan k ilic ti ox ppel vuchben hunob*
'thus how we were seeing it in three ancient books' (KAN777A)
- (64c) *ma kun yail in beeltah ca ɔoci in botic in ppax*
'I worked hard to finish paying my debts' (Ciudad Real 1600?: fol. 290v)

The incomplete or habitual aspect, which refers to generic, unbounded actions, was represented by the particle *lic* in Colonial Yucatec:

- (65a) *lic in venel tamuk in payal chi*
 'I usually fall asleep while I pray' (Ciudad Real 1600?: fol. 266v)
- (65b) *lic u ɔocol hanal ca tacech vaye*
 'when the meal ends, you should come here' (Ciudad Real 1600?: fol. 267r)
- (65c) *lic y ubic v tħan dios t u ciilmac y olil*
 'he listens to the word of God happily' (Ciudad Real 1600?: fol. 72v)
- (65d) *lic v tzaicēn in mehen*
 'my son quarrels with me' (Ciudad Real 1600?: fol. 113r)
- (65e) *lic v hakbiicon dios*
 'God loves us' (Ciudad Real 1600?: fol. 175v)
- (65f) *lic in nac-oltic Juan y etel v pectzile*
 'I am annoyed with John and his rumors' (Ciudad Real 1600?: fol. 316v)

lic was sometimes reduced to *c* during Colonial times:

- (66a) *bal c u ɔibtic au ol*
 'what do you think?' (Ciudad Real 1600?: fol. 129v)
- (66b) *he c u benel lo*
 'there he goes!' (Ciudad Real 1600?: fol. 205r)
- (66c) *he c u tal_ padre la*
 'here comes the priest!' (Ciudad Real 1600?: fol. 406r)
- (66d) *ɔib c u nentic y ol*
 'he is engaged in writing' (Ciudad Real 1600?: fol. 326v)

Although not common, the imperfective inflections of *hopp* and *ɔoc* also functioned as head words during the Colonial period:

- (67a) *bai tun las tres akab u tial y ahal cabe c u hoppol c meyah minan venel ton*
 'thus, then, at 3 o'clock at night, before dawn, we begin working without having slept' (HB784-216A-D)
- (67b) *bai bic c u ɔocol c mansic u yabal num=ya*
 'thus, how we finish experiencing much suffering' (HB784C-204A-B)

These examples, as well as those in (64a) and (64c), indicate that *hopp* and *ɔoc* retained their own aspectual inflections, even when functioning as aspectual head words in their own right. Such aspectual inflections

are, therefore, complement constructions, composed of a main word (the aspectual “head word”), followed by a complement (the verb with the imperfective stem).

Eventually, however, only the perfective form of these head words was retained in the language, and the -i suffix disappeared when it was reduced to a phrase-terminal marker (cf. 1.1.2. above), paving the way for them to be grammaticalized as aspectual head words, which is their primary function today.

The particle, *yan* (phonetic [yàan]) ‘be existent, have,’ that functions as an impersonal verb and copular nominal, also serves as an aspectual head word in Yucatecan Maya. Blair and Vermont-Salas (1965:109) have assigned to it the label “compulsive aspect” because it expresses “obligation or compulsion with respect to the activity indicated by the following verb form.”

Such expressions are rare in Colonial documents. The *Calepino de Motul* contains only two examples of its use with this meaning, both with imperfective antipassive stems based on *than* ‘to speak.’ Such stems take -Ø instead of -ic or -VI as aspectual suffixes (see 1.1.3. in Chapter 7):

- (68a) *yan* in mucul *than* in mucul can au icnal
 ‘*tengo que* dezirte y contarte en secretos palabras y cuentos secretos’
 ‘I must speak with you in confidence’ (Ciudad Real 1600?: fol. 310r)
- (68b) *yan* a *than* ten
 ‘*tienes que* dizirme’
 ‘you have to speak to me’ (Ciudad Real 1600?: fol. 214av)

Although the *Calepino* contains many other examples of *yan* followed by imperfective verb stems, their putative Spanish translations do not express compulsion. Instead, *yan* is treated like the Maya counterpart of the Spanish auxiliary verb, *haber*, in present perfect constructions, as in the following examples, where the first English gloss is a literal translation of the Spanish version of the sentence, and the second English gloss, in square brackets, is a direct translation from the Maya version:

- (69a) *yan* a *chijc* bak ti viernes
 ‘has comido carne en viernes’
 ‘you have eaten meat on Friday’
 [‘you must eat meat on Friday’] (Ciudad Real 1600?: fol. 141r)
- (69b) *yan* va a *chijc* yacil *chuplal*
 ‘has por ventura escuchado cuentos suzios de mugeres’
 ‘have you listened to dirty stories about women?’
 [‘do you have to listen to dirty stories about women?’] (Ciudad Real 1600?: fol. 141r)
- (69c) *yan* xin au *emçic* a kazal
 ‘has por uentura caido en polucion assi’
 ‘have you fallen into pollution like this?’
 [‘must you lower your genitals?’] (Ciudad Real 1600?: fol. 164v)
- (69d) *yan* au *alic* yamab y okol hun pay
 ‘has dicho testimonio falso contra alguno’
 ‘you have given false testimony against someone’
 [‘you have to give false testimony against someone’] (Ciudad Real 1600?: fol. 215v)

- (69e) yan in kebantiꝑ xiblal
 'he pecado con vn hombre'
 'I have sinned with a man'
 ['I must sin with a man'] (Ciudad Real 1600?: fol. 243r)
- (69f) yan a payiꝑ ciꝑin
 'has ydolatrado'
 'you have committed idolatry'
 ['you must commit idolatry'] (Ciudad Real 1600?: fol. 361v)

The interrogative format of some of these examples, as well as their content, suggest that the original source from which they were extracted was a Spanish catechism that was poorly translated into Maya. The Maya present perfect marked by -ma was certainly known to the Colonial Spanish grammarians and lexicographers. An entry in the *Calepino de Motul* describes its function explicitly:

- (70) **ma.** postpuesta al cuerpo de los verbos actiuos y algunos nombres denota tener hecha su operacion.
 'placed after the body of the active verbs and some nouns denotes having performed their operation.' (Ciudad Real 1600?: fol. 278r)

Perhaps because -ma could be suffixed to both nouns and verbs, or because transitive verbs inflected with it were never accompanied by an auxiliary verb that could be equated with *haber*, they were not regarded as the Maya equivalent of the Spanish present perfect.

Finally, there is one example of the use of *yan* as the compulsive aspect particle in a Colonial Maya document written in 1784:

- (71) yan ca mentic u pach bul
 'we have to prepare his bean field' (HB784B-118)

The context is a complaint against a Spanish priest in the town of Chunhuhub, who was accused of forcing his parishioners to labor on his agricultural estate all day long and well into the night without compensation (see also [67a–b]).

2.2.1. HISTORICAL CHANGE IN ASPECTUAL HEAD WORDS ASSOCIATED WITH THE IMPERFECTIVE STEM. As (66a–d) shows, the incomplete aspectual particle, *lic*, was already being reduced to *c* in the early Colonial period, and they coexisted throughout the Colonial period and for some decades afterward. In Tekanto, for example, during the first three decades of the nineteenth century, the imperfective stem co-occurred with both *lic* and *c*:

- (72a) lic yn kubic he bax ꝑeꝑetac t u matah yn commadre M.^a Candelaria Mutul ti v yum
 'I deliver whatever my godmother, Maria Candelaria Mutul, gave bit by bit to her father' (TK809B)
- (72b) c in kubic tanbuj lay solar
 'I deliver half of this house site' (KAN805B)

An interesting pair of examples drawn from a land document produced in Tekanto in 1820 shows that some transitive incomplete constructions underwent the same phonological change as transitive perfective constructions after the merger of the two forms of the first-person plural clitic pronoun had taken place (as already described in **2.1.2.** above):

(73a) t _ conah ti yn yum D.ⁿ Juan Segura
'we sold it to my lord Don Juan Segura' (TK820A)

(73b) lic _ conic hun ac chen
'we sell one well' (TK820A)

The clitic pronoun was deleted in both cases, to reduce the number of consonants in the cluster from three to two. Other examples of the deletion of this pronoun after lic during the same period include:

(74a) lic _ ɔaic v hahil vay c uy ubicob missae
'we certify that they listen to Mass here' (SCL803A)

(74b) lic _ hoksic u hunil xan
'we take the document out too' (TK819B)

(74c) lic _ kubic v hunil
'we deliver the document' (TK817D)

On the other hand, the reduction of lic to c, when combined with the merger of the two forms of the first-person plural clitic pronoun, resulted in a different kind of adjustment during the last decade of the eighteenth century:

(75a) ley lae h conic y oklal lahu ca kal peso taknil
'as for this, we sell it for 30 pesos in coins' (DZ791A-005A-C)

(75b) he ix kaax lum h conic lae
'and here is the forest land that we sell' (DZ791A-006A-C)

(75c) lay v chun h conic lae
'this is the reason why we sell it:

tux ma v chen satal ti toon
so that it won't just be removed from us' (DZ791A-008A-B)

(75d) lay v chun h kubic u carta de bentail y v tituloil
'this is the reason why we turn over the bill of sale and the title

ti lay ca yum señor D.ⁿ Bernaldo del Castillo
to this lord of ours, Don Bernaldo del Castillo' (DZ791A-010A-B)

In these cases, the remnants of the aspectual head word (c) and the clitic pronoun (c) are identical; therefore, it is not clear whether h is a reduction of the former or the latter.

lic eventually disappeared from the language entirely, leaving c (phonetic [kə]) before consonant-initial stems as the only representative of the incomplete aspectual head word in Modern Yucatec, as in:

(76a) b'ey ?iknal mehen k'é?eno? k im b'isik túun ho?
'thus with piglets there, I took them to Merida then' (EBT979A)

(76b) t u mèn hač k u ċ'oyik máak
'because it makes the person very thin' (EBT979B)

(76c) k a pée?ċ'=mačtik a nak' b'eya? k aw ú?uyik u titip'
'if you press your abdomen like this, you hear it ticking' (EBT979B)

(76d) y éetel le b'uká?ah b'á?al k u mèentikó?ob' tí? le máakóob'
'and the countless things they did to those people,

y éetel u pàalalóob' y éetel u ?iiháasóob'o?
and their sons, and their daughters' (EBT979C)

(76e) le máakó?ob' k u meyahó?ob' waye?
'these people were working here' (CHK979)

The other aspectual head words associated with the imperfective stem in Colonial Yucatec have survived intact into recent times as hó?op' (inceptive), táan (durative), ċ'ó?ok (terminative), and yàan or yan (compulsive):

(77a) ká?ah túun hó?op' u tàaló?ob' b'ine?
'and then they began to come, it is said' (CHK979)

(77b) le č'úupalo? táan u y óok'ol
'that girl was crying' (EBT979C)

(77c) táan u lúub'sik k'áaš
'he's clearing the jungle' (Blair and Vermont-Salas 1965:90)

(77d) ċ'ó?ok a b'èetik le meyahó?
'you finished doing that work' (Blair and Vermont-Salas 1965:121)

(77e) in sukú?une? ċ'ó?ok u b'in šan
'my older brother finished going too' (Blair and Vermont-Salas 1965:124)

(77f) yàan u ċ'áik tak ?ičkíil tí? b'eyo?
'she must even bathe her in it like that' (EBT979B)

On the other hand, there have been reduced alternatives of *táan* and *č'ó?ok* in Modern Yucatec at least since the 1960s:

- (78a) *t̥ in čan wenel*
'I'm having a snooze' (Blair and Vermont-Salas 1965:86)
- (78b) *t̥ u lúub'sik k'áaš*
'he's clearing the jungle' (Blair and Vermont-Salas 1965:90)
- (78c) *tún lúub'sik k'áaš*
'he's clearing the jungle' (Blair and Vermont-Salas 1965:90)
- (78d) *č' u náakskó?ob' e kàah b'eya?*
'they finished raising the town like this' (CHK979)
- (78e) *č' u máan ?àanyos b'eyo?*
'the years finished passing like that' (CHK979)

A comparison of (78b–c) with (77c) indicates that there are actually two reduced forms of *táan* in Modern Yucatec. In one (78b), *táan* is reduced to a single consonant, *t̥*. In the other (78c), the clitic pronoun, *u*, is infixed in *táan*, rather than representing a separate element in the phrase. (78d–e) shows that *č'* is the only alternative form of *č'ó?ok* in Modern Yucatec.

The imperfective stem co-occurs with three additional head words in Modern Yucatec, for which I have found no evidence in Colonial Yucatec. The assurative aspect is represented by the framing particles *hé?(el) ... e?*:

- (79a) *hé?el a tàal sáamale?*
'you will certainly come tomorrow' (V. Bricker et al. 1998:102)
- (79b) *hé? u tàal sáamale?*
'he will certainly come tomorrow' (V. Bricker et al. 1998:102)
- (79c) *hé? im b'is[i]ke?*
'I will certainly take him along' (Blair and Vermont-Salas 1965:159)

The proximate perfective aspect is also composed of framing particles, *táant ... e?*:

- (80a) *táant in wèensike?*
'I just put him to sleep' (Blair and Vermont-Salas 1965:158)
- (80b) *táant u b'ine?*
'she just went' (Blair and Vermont-Salas 1965:158)
- (80c) *táant in hàan[a]le?*
'I just ate' (V. Bricker et al. 1998:270)

It is tempting to view táant as a combination of the durative particle, táan, and the completive clitic particle, t, that refers to completed actions. The fact that táant ... e? refers to the immediate past lends credence to that interpretation, even though it does not co-occur with the perfective stem.

The aspect that expresses necessity is the remaining one associated with the imperfective stem in Modern Yucatec. Its head word is k'ab'éet⁴:

- (81a) pwes b'eyo? t u mèn le h kàahlé?eša? k'ab'éet k nohočkíintiké?eš
'Well, like that, because we residents, we need to enlarge it' (CHK979)
- (81b) k'ab'éet in manik ?um p'é čóoy
'I have to buy a bucket' (Blair and Vermont-Salas 1965:250)
- (81c) k'ab'éet im b'in b'e?ðoráa?
'I have to go now' (Blair and Vermont-Salas 1965:251)

2.3. ASPECTUAL HEAD WORDS ASSOCIATED WITH THE SUBJUNCTIVE STEM. Modern Yucatec has three aspectual head words that co-occur with the subjunctive stem: ?úuč (remote or indefinite past), sáam (anterior past), and b'íin (remote or indefinite future). Of these, only b'íin is well documented in Colonial sources (as bin). Only one instance of ?úuč appears in a dated context and one each in the Books of Chilam Balam of Chumayel and Kaua (as uch), the extant copies of which probably date from the first quarter of the nineteenth century. sáan is not usually classified as a head word, but it does have that function in Modern Yucatec, as explained in 3. below.

The Calepino de Motul defines bin as a particle of the future imperfect (*es particula de futuro imperfecto*) (Ciudad Real 1600?: fol. 52v), implying that it served as a tense marker. However, its principal function in the language was as an aspect, characterizing an event that may take place in the future as indefinite or remote. The uncertainty implied by this aspect is consistent with its association with the subjunctive stem.

The following sentences illustrate the use of this head word with root transitive subjunctive stems marked by -Vb in Colonial Yucatec:

- (82a) bin in macab in kooch
'I will pay for my mistake' (Ciudad Real 1600?: fol. 283r)
- (82b) bin va a xetheb au ol ti benel ti katun
'will you dare to go to war?' (Ciudad Real 1600?: fol. 457r)
- (82c) bin a ppoob a nok çamal laachano
'you are going to wash your clothes tomorrow; so it will be! (Ciudad Real 1600?: fol. 257v)
- (82d) bin in muxub v bal in ba ca in çijb ti y otoch ku
'I am going to liquidate my possessions and offer them to the church' (Ciudad Real 1600?: fol. 314r)

The examples below demonstrate the use of this head word with root intransitive stems marked by -Vc in Colonial Yucatec:

- (83a) bin nahac ti hun kul bolon pixanil
'he will merit good fortune' (Ciudad Real 1600?: fol. 319r)

- (83b) ma vohel va mac bin xijc ti ho
'I don't know who will go to Merida' (Ciudad Real 1600?: fol. 441v)
- (83c) bicx cochoh va bin cimicech ichil a kebane
'what will become of you if you die in your sin?' (Ciudad Real 1600?: fol. 78r)
- (83d) ɔa a tumut=thanex va mac bin ococ ti alcaldeil
'vote for someone who will become magistrate!' (Ciudad Real 1600?: fol. 128r)
- (83e) napul padre ti missa ti hanal ca bin huluc vaye
'as soon as the priest arrives here, he will say Mass and eat' (Ciudad Real 1600?: fol. 324r)

bin was also mentioned frequently as a head word with subjunctive stems in notarial documents throughout the Colonial period, especially in testaments and those concerned with land disputes. Some examples of its use in such contexts appear below:

- (84a) ma ix mac u yanal uinic bin ococ u colobi
'and none of the other men are going to enter their cornfields' (EBT600C)
- (84b) ua bin hoppoc ti baxal t u tanil testigosob
'if he will begin to joke in the presence of witnesses' (OX683-017A-C)
- (84c) bin ix v kubub v hunil tiob xan
'and he is going to deliver the document to them also' (DZ700-016A-B)
- (84d) bin y ohelt_ob t u lacal vinicob yanil yn tixtamento yn tokyah than
'everyone is going to know of the existence of my last will and testament' (TK724A)
- (84e) ti ma k ohel va yx bin cimicen yn yanil t in chapahal yn yanil lae
'for we do not know if I am going to die from this illness of mine' (TK730J)

The Proclamation of Juan de la Cruz, a text produced by the leader of a Maya religious movement in the middle of the nineteenth century, used bin in prophetic utterances with transitive roots and stems:

- (85a) he max ma tan ll ocsah oltic inv aalmah thane
'whoever is not believing in my commandments
- bin u kam_ hun lukul numniah ti minan u xul
is going to receive endless suffering forever' (V. Bricker 1981a:189, lines 74–76)
- (85b) he max bin u jocbes_ inv almah thane
'whoever is going to obey my commandments
- bin u nahalt_ u nohchil in gloria
is going to win the fullness of my Grace' (V. Bricker 1981a:189, lines 77–78)

The following sentences illustrate the use of *b'íin* with transitive and intransitive subjunctive stems in Modern Yucatec:

- (86a) *b'áʔaš k'ín b'íin a ǵ'áeh*
 'when are you going to give it?' (Blair and Vermont-Salas 1967:684)
- (86b) *b'íin talak in wenel*
 'I'll get to sleep' (Blair and Vermont-Salas 1967:684)
- (86c) *b'íin talak u šoteh*
 'he will come to cut it' (V. Bricker 1979a:294)

There was, then, essentially no change in the use of *bin/b'íin* as an aspectual head word from the time when the Spaniards first arrived in the Yucatan peninsula until recent times. Then, as now, it referred to a remote, indefinite, or uncertain future, contrasting in this respect with other "futures," such as the one implied by the assurative aspect, whose outcome was regarded as less in doubt. It is for this reason that *b'íin* cannot be regarded as a marker of the "future tense." What is most salient about *b'íin* is its focus on uncertainty, a quality that is reinforced by its association with subjunctive stems.

uch (phonetic [ʔúuč]) refers to events that have taken place at the opposite end of the time spectrum from *b'íin*, namely the remote or indefinite past. The few examples of its use in Colonial documents are best translated as 'long ago':

- (87a) *uch sat[a]cen uay iokol cabe*
 'I got lost long ago here in the world' (EBT632A)
- (87b) *vch yn ɔab_ tech*
 'I gave it to you long ago' (Gordon 1913:36)
- (87c) *chacautacob yan t u pucikal kohane*
 'as for fevers that exist in a patient's heart,
 va *uch* *hoppoc* tie ma utz v xenahebe
 if they began there long ago, vomiting is not good' (Kaua n.d.:II, 47L)

It is more common in Modern Yucatec:

- (88a) *ʔúuč u mačeh*
 'he seized it long ago'
- (88b) *ʔúč ǵ'íb'nakeč*
 'long ago you wrote' (Blair 1964:101)
- (88c) *ʔúč kušlakóʔob'*
 'they lived long ago' (Blair 1964:116)

sáam (also sáan), the head word that refers to the anterior past, occurred frequently in conversation during the months in 1979 when I lived in Ebtun. My fieldnotes include the following examples of its use:

- (89a) láas trées ?áak'ab'e? sáan líik'ík ?óoçil in swèegráe? p'o? k'ú?um
'at three o'clock at night, my poor mother-in-law had already risen to rinse hominy' (EBT979A)
- (89b) sáam u tàaseh
'he brought it a while ago' (V. Bricker 1979a)
- (89c) sáan ší?ik hwàan
'John went a while ago' (V. Bricker et al. 1998:242)

There is no evidence of the use of this aspectual head word in any of the 125 documents in the Titles of Ebtun, nor in the other documents in my database, perhaps because it is more likely to be relevant in the give and take of oral dialogue than in the narrative discourse of written texts.

3. SEMANTIC IMPLICATIONS OF ASPECT IN MODERN YUCATEC

The semantic distinctions encoded by the many aspectual head words and deictic particles in Modern Yucatec can be evaluated by comparing them with respect to specific transitive and intransitive verbs. For this purpose, I have chosen the root transitive, mač 'to grasp, seize,' and the root intransitive, b'in 'to go, leave,' and have examined their inflection with the six aspectual head words and one clitic particle that have a temporal reference of some kind to the past. Included in this analysis is the present perfect inflection of these verbs.

In the transitive examples (90a–g), the phrases are grouped in terms of their aspectual stem suffixes: -ik, followed by -ah, then -eh (elicitation notes 1979):

- (90a) ç'ó?ok in mačik
'I finished seizing it'
- (90b) táant in mač[i]ke?
'I just seized it'
- (90c) hó?op' in mačik
'I began to seize it'
- (90d) t in mačah
'I seized it (but it may not still be in my hand)'
- (90e) in mačmah
'I have seized it (and it is still in my hand)'
- (90f) sáam in mačeh
'I already seized it (but it is no longer in my hand)'
- (90g) ?úuč in mačeh
'I seized it long ago'

The same principle underlies the ordering of intransitive examples in (91a–g), except that the corresponding aspectual stem suffixes that are relevant for *b'in* are -Ø, -ih, -(ah)á?an, and -Vk (V. Bricker 1979a:90):

- (91a) táant u b'in_e?
'he just left (and has not yet returned)'
- (91b) ø'ó?ok u b'in_
'he finished going (and returned recently)' [i.e, his departure ended, and now he's back]
- (91c) hó?op' u b'in_
'he began to leave'
- (91d) b'inih
'he went (action completed)'
- (91e) b'ihá?an
'he has gone (and not yet returned)'
- (91f) sáan ší?ik
'he went some time ago (and returned)'
- (91g) ?úuč ší?ik
'he went long ago'

In (91f–g), *ší?ik* is the suppletive subjunctive stem of *b'in* in Yucatec Maya. In (91e), *b'ihá?an* is a contraction of *b'inahá?an*; -á?an is a participial suffix that marks the intransitive counterpart of the transitive present perfect stem (see 2.1. in Chapter 10).

The difference in meaning between *b'inih* and *bihá?an* can be clarified by considering the following examples with *b'in*, *tàal* 'to come,' and *lúub* 'to fall' (elicitation notes 1979):

- (92a) b'in_ ho?
'he went to Merida (and may not return)'
- (92b) bihá?an ho?
'he has gone to Merida (and will return)'
- (92c) tàal_ h wàan
'John came (and left again)'
- (92d) tàalhá?an h wàan
'John has come (and is still here)'
- (92e) lúub'ih
'he fell (but it is not known if he stayed on the floor)'
- (92f) lúub'á?an
'he has fallen (and is still on the floor)'

Aspects of Yucatec Maya

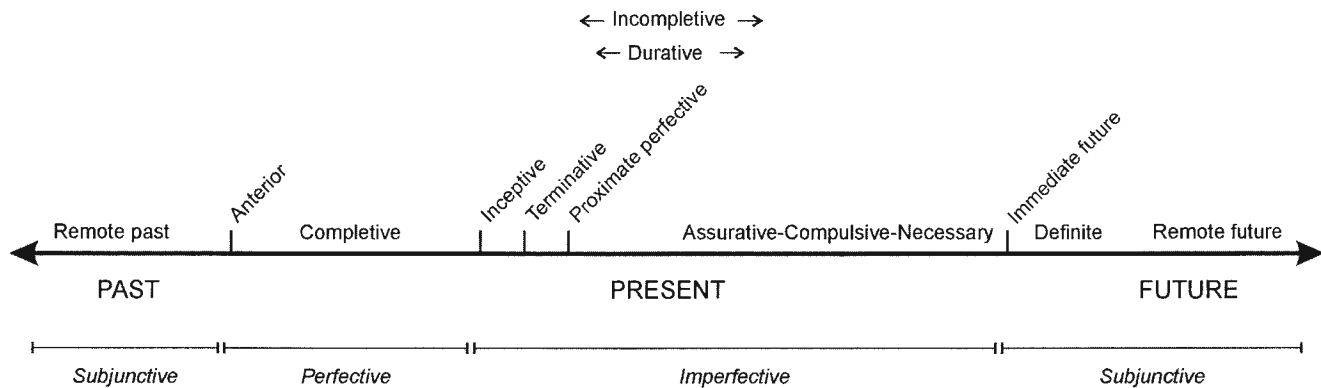


Figure 5-3. Aspects of Yucatec Maya. Drawing by Harvey M. Bricker.

These pairs of examples indicate that the completive aspect (marked by -ih or -Ø in [92a], [92c], and [92e] and no aspectual head word or particle) refers only to the completion of an action, without specifying its internal constituency (Comrie 1976:5), whereas the present perfect (marked by -[ah]áʔan in [92b], [92d], and [92f]) indicates that the action in question has some duration, as is also apparent in the following examples of the use of b'iháʔan and pik'čaháʔan in Hocaba:

- (93a) ʔamat k'in b'iháʔan h wàan
'John was gone all day' (V. Bricker et al. 1998:5)
- (93b) b'iháʔan y óoʔ č'éʔen in kiik
'my older sister has gone to the well' (V. Bricker et al. 1998:16)
- (93c) pik'čaháʔan
'he's gone' (V. Bricker et al. 1998:216)

Another dimension of contrast concerns the relative distance from the present encoded by the different aspects. Thus, táant in mač[i]keʔ (90b) represents a more recent past than č'óʔok in mačik (90a), which in turn represents a more recent past than hóʔop' in mačik (90c). Similarly, sáam in mačeh (90f) refers to a more recent past than ʔúuč in mačeh (90g). These relationships are illustrated on the left-hand side of the timeline in Figure 5-3.

On the other hand, although most of the remaining aspects are, in one sense or another, concerned with the future, they cannot be so neatly arranged in a temporal sequence. This is undoubtedly because the future is less well known than the past. Instead, they express notions of obligation or relative definiteness about future events, as illustrated on the right-hand side of the timeline in Figure 5-3 and in the examples below (elicitation notes 1979):

- (94a) heʔel in šokikeʔ
'I will certainly read it'
- (94b) yàan in šokik
'I must read it'

- (94c) k'ab'éet in šokik
'I need to read it'
- (94d) tèen kin h šokik ~ tèen kin in šokeh
'it is I who is going to read it'
- (94e) b'íin in šokeh
'I will read it sometime'

The examples in (94d–e) contrast the definite future with the indefinite or remote future. In a reversal of basic word order in Yucatec Maya, the agent (tèen) in (94d) has been moved to the front of the sentence, which is a morphosyntactic process that will be explained at length in 2.1. in Chapter 16.

The remaining aspects mentioned in Figure 5-3 lack the temporal implications of the other aspects. The events they refer to are either habitual (the incompletive) or in progress (the durative) and, as such, can be placed anywhere along the timeline.

4. THE “PRESENT TENSE”

What then of the so-called present tense (*presente de indicativo*) of the Colonial grammarians. If it was not a tense, what was it? Hanks (2010:210) describes it as a “progressive,” but it must have been more than that. Examples from both Colonial and Modern Yucatec indicate that it had a purposive function and actually served as an intentional or immediate future in a number of contexts.

4.1. CORONEL’S PARADIGM OF THE “PRESENT TENSE.” The paradigm for the “present tense” shown in Coronel’s grammar (1620a:6) and repeated in the later grammars of San Buenaventura (1684: fol. 3r) and Beltrán de Santa Rosa María (1746:41) employs a periphrastic construction composed of the imperfective stem of a root intransitive followed by *cah*, which is inflected with an ergative pronoun:

(95)	<u>Maya</u>	<u>Spanish</u>	<u>Gloss</u>
	nacal in cah	yo subo	I ascend
	nacal a cah	tu subes	you ascend
	nacal v cah	aquel sube	that one ascends
	nacal ca cah	nosotros subimos	we ascend
	nacal a cahex	vosotros subis	you-all ascend
	nacal v cahob	aquellos suben	they ascend

The root of the intransitive verb is *nac* ‘to ascend’; *nacal* is its imperfective stem, accounting for the possible gerundial (or “progressive”) meaning in this context. However, the initial position in such constructions can also be occupied by nouns and adjectives, as in the following examples:

- (96a) ich v cah che lo
'that tree bears fruit' (Ciudad Real 1600?: fol. 223r)
- (96b) ikal v cah kaknab
'the sea is turbulent' (Ciudad Real 1600?: fol. 225r)

(96c) kazil v cah
 'he is behaving foolishly' (Ciudad Real 1600?: fol. 233r)

(96d) ya v cah in tanamel
 'my liver is sore' (Ciudad Real 1600?: fol. 411r)

On the other hand, the verbal stems that occupy this position cannot take direct objects: Transitive verbs must be intransitivized before they can appear in such constructions, and their direct objects must be demoted to indirect objects after the preposition *ti* (reduced to *t* before a possessive pronoun in the following examples):

(97a) ichintah v cah ti chupllob
 'he is eyeing the women' (Ciudad Real 1600?: fol. 224r)

(97b) paycun v cah ti chuplal
 'he is bewitching a woman [to sin with her]' (Ciudad Real 1600?: fol. 361v)

(97c) halmah in cah t u xicin
 'I am advising him' (Ciudad Real 1600?: fol. 204v)

(97d) kaayah v cah Juan t u baal v ba cimen
 'John is selling the belongings of the dead person' (Ciudad Real 1600?: fol. 234v)

This limitation calls into question the claim that such constructions represent a tense, because tenses normally apply to both transitive and intransitive verbs.

The Calepino de Motul contains numerous examples of such constructions, whereas their frequency in the many documents from the Colonial period is very low. In Colonial testaments, the testator introduces his or her enumeration of the items he will bequeath to heirs with *patcan in cah* 'I declare,' using a participle in the initial position, as in the following example:

(98) patcan yn cah lae
 'I declare this:

hun ac yn man solal y ynv icham Phelipe Hau lae
 this one house plot that I purchased with my husband Felipe Hau,

c in caic ti ynv al Lucia Hau y etel yn han Pedro Yx
 I give to my daughter Lucia Hau and my son-in-law Pedro IX' (TK757L)

The emphasis on such constructions in the Calepino de Motul, compared with their low frequency in Colonial documents produced by the Maya themselves, is probably an artifact of their classification as a "present tense" by the Spanish priests who produced the Colonial grammars. As Hanks (2010:154–155) points out, the grammars and Spanish-Maya and Maya-Spanish dictionaries like the Calepino were intended as aids in the conversion of the Maya people to Catholicism. They were used for translating their catechisms, sermons, and Biblical texts into Maya, and for that purpose they elicited many sentences exemplifying the use of the "present tense" in this language that they incorporated in their dictionaries.

4.2. THE USE OF THE “PRESENT TENSE” TO EXPRESS INTENTION. The intentional function of Coronel's “present tense” is most evident in examples from the Calepino when the initial position of that construction is occupied by *benel*, the root of which is *ben* ‘to go’:

- (99a) *benel in cah in cñab in toh cumkal*
‘I am going to collect my debts in Conkal’ (Ciudad Real 1600?: fol. 153v)
- (99b) *benel in cah in hau in col t in han*
‘I am going to divide my field with my son-in-law’ (Ciudad Real 1600?: fol. 178r)
- (99c) *benel in cah in ma-mac-kabte y okol Juan*
‘I am going to intercede on behalf of John’ (Ciudad Real 1600?: fol. 292r)
- (99d) *benel in cah ti con=muk*
‘I am going to hire myself out for work [literally, I am going to sell strength]’ (Ciudad Real 1600?: fol. 311r)
- (99e) *benel in cah in chaante missa*
‘I am going to attend Mass’ (Ciudad Real 1600?: fol. 137r)
- (99f) *benel in cah in nacte okot*
‘I am going to watch the dance’ (Ciudad Real 1600?: fol. 315v)

They, as well as *patcan in cah* ‘I declare’ in testaments (e.g., [98] above), are also semantically transparent examples of Smailus’ (1989:20–21) “declarative mode” (see also **7.** in Chapter 16).

ben ‘to go’ had an alternative form, *bin*, during the sixteenth century. Eventually, *binel* replaced *benel* in the *benel* A-cah expressions, as in the following example from Homun, near Hocaba:

- (100) *binel u cah* u con lay u lumob
‘he is going to sell these lands of his’ (HOM804B)

By the middle of the eighteenth century, *binel in cah* and *bin in cah* had become equivalent expressions for ‘I am going,’ according to Beltrán de Santa Rosa María (1746:66), and a century later, *bin* A-cah had become the standard form of this expression:

- (101a) *bin u cah* bisbil Santa Rosa hun pulili
‘Saint Rose is going to be taken for once and for all’ (COP850A)
- (101b) entonces *bin u cah* tun likil tropae
‘then, troops are going to rise up then’ (HAS850A)
- (101c) *bin u cah* u ximbat a tzicbenilex
‘he is going to visit Your Excellency’ (CHA851A)

In the 1930s, Andrade (1940:**4.56**) documented the persistence of the *bin* A-cah construction in Modern Yucatec. However, by the 1970s, several alternative forms of this construction had appeared in the penin-

sula. The alternative that was most similar to the one that was established during the eighteenth century was in use in the eastern part of the peninsula, notably in Ebtun and the surrounding region, for which I elicited the following paradigm during the months I lived in Ebtun in 1979 (V. Bricker 1979a:82):

(102)	<u>Singular</u>	<u>Plural</u>
1st	b'in u káʔah-en 'I am going'	b'in u káʔah-óʔon 'we are going'
2nd	b'in u káʔah-eč 'you are going'	b'in u káʔah-éʔeš 'you-all are going'
3rd	b'in u káʔah-Ø 'he/she is going'	b'in u káʔah-óoʔ 'they are going'

The major change between this paradigm and the one used by Coronel for nac 'to ascend' is that the ergative pronoun associated with káʔah remains u irrespective of the person of the subject, and the inflection for subject is now marked by the suffixed absolutive pronouns. An example of this construction that was mentioned to me in Ebtun is:

- (103) b'in u káʔahen č'ùuy
'I am going to sew' (V. Bricker 1979a:41)⁵

At the same time in the west, only the final nasal in b'in was retained in this construction, and it was merged with the subject pronoun:

(104)	<u>Singular</u>	<u>Plural</u>
1st	mi káʔah ~ niŋ káʔah 'I am going'	mah káʔah 'we are going'
2nd	ma káʔah ~ na káʔah 'you are going'	ma káʔahéʔeš 'you-all are going'
3rd	mu káʔah ~ nu káʔah 'he/she is going'	mu káʔahóʔob' 'they are going'

In Hocaba, I was told that if someone said mi káʔah hoʔ 'I am going to Merida,' he or she would immediately get up and set out for Merida. From this, I inferred that such constructions functioned as an immediate future, neither a present tense nor a progressive aspect, and I have so labelled it in Figure 5-3.

5. ASPECTUAL STEM SUFFIXES IN ADVERBIAL FOCUS CONTEXTS

The basic word order for transitive clauses in both Colonial and Modern Yucatec is Verb-Object-Subject-Adverb (VOSA), and it is Verb-Subject-Adverb (VSA) for intransitive clauses, both of whose verbs take the stem suffixes described in 2. above. When the adverb is moved to the front of the clause, before the verb, in adverbial focus constructions (AVOS and AVS), a different set of suffixes marks the perfective and subjunctive stems (see also 2. In Chapter 16).

The first formal treatment of adverbial focus constructions in Modern Yucatec was carried out by Robert Blair (1964:99–102, 114–116), and it was followed eight years later by Marlys Steffle's (1972:119, 168, 170–172) analysis of such constructions involving the manner interrogative particle (b'ış 'how') and manner adverbial particles like b'ey 'thus' and máʔalob' 'well.' Ortwin Smailus included such constructions in his research on Colonial Yucatec during the 1970s, which was published in 1989. At about the same time, I dealt comparatively with such constructions in both Colonial and Modern Yucatec, focusing on the fronting of temporal adverbial particles and dates (V. Bricker 1981b). More recently, Yoshiho Yasugi (2005) has analyzed such constructions in terms of head-marking theory, using examples drawn from the Colonial grammars of Coronel (1620a) and San Buenaventura (1684).

5.1. INTRANSITIVE STEM SUFFIXES THAT CO-OCCUR WITH FOCUSED ADVERBIAL PARTICLES. The movement of an adverbial particle such as *bay* ‘thus, like’ to a position in front of an imperfective intransitive verb in Colonial Yucatec did not result in a change in the stem suffix:

- (105a) *lic v çebech malelob bay u malel booye*
 ‘they pass quickly like the shadow passes’ (Ciudad Real 1600?: fol. 101r)
- (105b) *bay v binel ti chikine*
 ‘thus it goes to the west’ (SB596B-070)
- (105c) *bai bic v talel lae*
 ‘thus how it comes’ (TK661-008C)

However, whenever the intransitive verb in question referred to an event that took place in the past, then the *-el* or *-VI* suffix was replaced by one of two suffixes, *-ic* or *-(i)ci*, depending on whether the emphasis was on completion or sequencing:

- (106a) *lay u chun binic padre*
 ‘por esso se fue el padre’
 ‘for that reason the priest left’ (Coronel 1620a:41)
- (106b) *lay u chun binci padre*
 ‘por esta causa se fue el padre’
 ‘for this reason the priest left’ (Coronel 1620a:41)

(106a) has been qualified by Coronel (1620a:41) as follows: “if the preterite is of today, that is, the present day, the *c* occurs at the end (*si el preterito es de hoy, digo, del dia presente, se postpone la c*),” implying that (106b) represents an action that has been completed, without specifying when. This distinction parallels the one that the Colonial grammarians claimed was signalled by the use of *Ø-* and *ti-* with the normal intransitive perfective stem suffix, *-ih*. And the Spanish glosses provided by Coronel invoke the third-person preterite of *irse* ‘to depart’ in both (106a) and (106b), demonstrating, once again, the difficulty experienced by the Colonial grammarians in distinguishing semantically between the two ways of referring to the past.

As in the case of intransitive stems marked by *-ih* for the perfective, those marked by *-ic* and *-(i)ci* involved an ergative split, but the split was in terms of a person hierarchy, contrasting the first and second persons with the third, not in terms of a contrast between the imperfective and perfective aspects:

(107)	<u>Singular</u>	<u>Plural</u>
1st	<u>in</u> tal-ic	<u>ca</u> tal-ic
2nd	<u>a</u> tal-ic	* <u>a</u> tal-ic- <u>ex</u>
3rd	tal-ic- <u>Ø</u>	tal-ic- <u>ob</u>

These forms are illustrated below in context:

- (108a) *hanil be in talic*
 ‘limpio esta el camino por donde oy he venido’
 ‘the road on which I have come is clear’ (Ciudad Real 1600?: fol. 197r)

- (108b) tabx au ocil a talic
 'de donde has oy venido'
 'from where have you come?' (Ciudad Real 1600?: fol. 342r)
- (108c) kax=cab talic_ Juan
 'a des[h]ora vino oy Juan'
 'John came suddenly' (Ciudad Real 1600?: fol. 241v)
- (108d) hal tan pay ca talic
 'a rraiz de la playa hemos venido'
 'next to the beach we have come' (Ciudad Real 1600?: fol. 360r)
- (108e) lah=cet talicob t u lalac
 'todos han venido oy juntos, o juntamente'
 'everyone has come together' (Ciudad Real 1600?: fol. 259v)

Note that the first- and second-person singular and plural forms of talic took the clitic set of subject pronouns (in, a, ca), but the third-person singular and plural forms of talic were marked by the suffixed set of pronouns (-Ø and -ob). The same was true of bin(i)ci:

(109)		<u>Singular</u>	<u>Plural</u>
	1st	<u>in</u> bin-ci	* <u>ca</u> bin-ci
	2nd	* <u>a</u> bin-ci	<u>a</u> bin-ci- <u>ex</u>
	3rd	bin-ci- Ø	bin-ci- <u>ob</u>

Some examples of the use of these forms in context appear below:

- (110a) ciac-ciac in binci
 'fuyme aca y aculla como quiera'
 'I went here and there aimlessly' (Ciudad Real 1600?: fol. 70v)
- (110b) ix ma y oc be binci_ Juan
 'John lost his way' (Ciudad Real 1600?: fol. 229r)
- (110c) bay binici_ ti lakin ...
 'thus it went to the east ...' (DZ569-038)
- (110d) ma tuz a binciexe
 'lexos de aqui os fuistes'
 'you-all went far from here' (Ciudad Real 1600?: fol. 301r)
- (110e) layli u katunil binciob ah ytzaob
 'it was still the katun when the Itzas went

yalan che yalan haban yalan ak ti num=yaob lae
 beneath trees, beneath bushes, beneath vines in misery' (Gordon 1913:75)

Yasugi (2005:59, n1) has interpreted the first “i” in the -ici suffix of bin-ici in (110c) as “an echo of the root vowel -i-” that was inserted to break up the consonant cluster resulting from suffixing -ci to bin. However, -ici is not limited to CiC intransitive stems; it also occurs in antipassive stems, where neither the root vowel, nor the immediately antecedent vowel is “i”:

(111a) onteel haab in menyahnici y icnal in haan
 ‘muchos años trabaje en casa de mi suegro’
 ‘for many years I worked in the house of my father-in-law’ (Ciudad Real 1600?: fol. 351r)

(111b) lotay v tñanil tñanici Apostolob
 ‘hablaron los apóstoles en diuersas lenguas’
 ‘the apostles spoke in diverse languages’

ca emi spiritu sancto y okolob
 quando descendio el espiritu sancto sobre ellos’
 when the Holy Spirit descended over them’ (Ciudad Real 1600?: fol. 273v)

It is therefore possible that -ici was actually composed of two suffixes, -ic and -i, and the latter had some kind of deictic function that assigned the event in question to a less specific past.

The examples in (108a–e) and (110a–e) emphasize the distinction made by the Colonial grammarians between the recent past (marked by -ic) and the undifferentiated past (marked by -[i]ci) in two ways. -ic is glossed in terms of the preterite in (108c), but is qualified as referring to the recent past by the inclusion of [h]oy ‘today’ in the gloss. [h]oy also appears in the glosses of (108a–c) and (108e), but not in (108d), where the recent past is signalled by the use of the present perfect. In these ways, all the examples in (108a–e) are glossed in terms of the recent past.

Only two of the examples in (110a–e) have Spanish glosses, and in both cases -[i]ci is glossed in terms of the preterite (110a, d), suggesting that it refers to the undifferentiated past.

The contrast here is the same as the one claimed by Colonial grammarians for the two aspectual clitic particles, Ø- and t(i)-, only in this case it is possible to provide a test of its validity that does not depend on the contrast between the preterite and present perfect tenses that are employed in the Spanish glosses.

We can use for this purpose adverbially focused constructions in which calendar dates serve as temporal adverbs. They appear in two distinct genres in Colonial sources: (1) *cofradía* books containing dated records of festivals and the expenditures for supporting them and (2) chronicles of known events that took place in the recent and distant past.

The following examples of the use of -ic with dates serving as focused temporal adverbs come from the *cofradía* book maintained in Chunhuhub during 1783:

(112a) helel en 20 de abril manic pasgua resuresion
 ‘today on the 20th of April, Easter Sunday passed’ (HB783B-220A-B)

(112b) helel en 10 de agosto manic u fiesta ca yum Sor ah bolon pixan Sn Lorenzo
 ‘today on the tenth of August, the fiesta of our father, the fortunate Saint Lawrence passed’
 (HB783B-234A-C)

The ones in (113a–c) come from a variety of other sources, including the Books of Chilam Balam of Chumayel and Tizimin and a notarial document:

- (113a) Chumayel 28 sihic ayijada Micaela Castañeda
 '[in] Chumayel, on the 28th [month not mentioned], the godchild, Micaela Castañeda, was born'
 (Gordon 1913:24)
- (113b) oxil cauac culhic can ahau katun
 'on 3 Cauac, Katun 4 Ahau was seated' (Tizimin n.d.: fol. 19r)
- (113c) hele en 18 de mayo de 1785 años bay xulic in tñan
 'today on the 18th of May of 1785 years, thus ended my words' (EBT785A)

The example in (113a) is an incomplete record of a birth written on a blank page of the Book of Chilam Balam of Chumayel, the one in (113b) comes from a list of Maya New Year dates for the years 1752 through 1771, specifying that Katun 4 Ahau began on the day 3 Cauac in the Maya sacred calendar in 1752, and the one in (113c) occurs at the end of the testament of a woman named Rosa Camal who lived in Ebtun.

I heard the same kind of construction in Ebtun and Hocaba in 1979:

- (114a) làas sèeys kóohiken
 'at six o'clock I arrived' (V. Bricker 1979a:241, 268)
- (114b) dyèes déeh ?áabril kóohiken
 'on the tenth of April I arrived' (V. Bricker 1979a:268)

The Chronicle of Oxkutzcab is a sixteenth century Maya document that correlates the years, 1534–1545, with their counterparts in the Precolumbian calendar. It contains several intransitive verb stems with the -[i]ci suffix, each of which is immediately preceded by the Maya calendar-round dates for the first day of the year:

- (115a) 1543 años hun muluc t u hun te pop cinciob
 '1543 years: 1 Muluc was on the first of Pop when the people of
 ah cìomtunob t u men v katun espayoresob
 Dzidzantun died because of the war of the Spaniards' (OX685-028A-D)
- (115b) 1545 años oxlahun cavac t u hun te pop hoppci xptianoil
 '1545 years: 13 Cauac was on the first of Pop when Christianity began
 t u men frayleçob vay ti cah lae
 because of the friars here in this town' (XIU685-032B-C)

Here, unlike the examples in (112a–b) and (113a–c), the temporal reference is to a year in the past, not to a day in progress, for which the -ic suffix would have been more appropriate. The same is true of the following examples from the Katun chronicles in the Books of Chilam Balam of Chumayel and Tizimin:

- (116a) hoo ahau vlci çul ti chibil uinic
 'during [Katun] 5 Ahau, the cannibalistic foreigners arrived' (Gordon 1913:79)

(116b) cabil ahau uch*ci* kakil noh kakile
 'during [Katun] 2 Ahau, the smallpox epidemic, the great epidemic, occurred' (Gordon 1913:76)

(116c) XI buluc ahau hul*ci*ob kul uinicob ti lakin
 'during [Katun] 11 Ahau, the holy men arrived in the east' (Gordon 1913:76)

(116d) Do. 1519 a.^s eclah*ci* ku na ti hoo
 'in the year 1519, the cathedral was sited in Merida (Gordon 1913:63)

(116e) bolon ahau hopp*ci* xptianoil
 'during [Katun] 9 Ahau, Christianity began,

vch*ci* ca put si
 and resurrection happened;

laili ichil u katunil vl*ci* yax obispo Toral
 still during the katun, the first bishop, Toral, arrived' (Tizimin n.d.: fol. 19r)

(116f) vaxac ahau pax*ci* cah Mayapan
 'during [Katun] 8 Ahau, the town of Mayapan was destroyed

t u menel vitzil c*ul*
 by the mountaineer foreigners' (Tizimin n.d.: fol. 19r)

Such constructions were not limited to Katun chronicles during the sixteenth century. They can sometimes be found in other kinds of historical narrative:

(117) y oklal ho t u kal y abil hul*ci*ob ek padresob
 'because 25 years ago, the black [robed] priests arrived,

t u pachob espa*ñ*olob
 accompanying the Spaniards' (MID567:fol. 367, 94–95)

In none of the examples do the temporal references implicate a single day, agreeing in this respect with the function of the -[i]ci suffix postulated by the Colonial grammarians.

There are, however, two apparent exceptions to this view of the -[i]ci suffix, one in the Chumayel and the other in the Tizimin, both of which are concerned with the same event that took place in the 1530s:

(118a) bolon imix u kinil cim*ci* ah pul ha
 '9 Imix was the day when the water-bringer died;

lei tun hab 1536 cuchi
 'this, then, was the year 1536' (Tizimin n.d.: fol. 19r)

- (118b) bolon ymix hi u kinil lay cimci ah pul [h]a lae
 '9 Imix, here was the day when this water-bringer died;

napot xiu t u habil de 158 años
 it was Napot Xiu in the year of Our Lord 158' (Gordon 1913:76)

The 1536 date is the one mentioned for this event in the Chronicle of Oxkutzcab (H. Bricker and V. Bricker (2011:77–81). These passages refer to the massacre of a group of Maya priests led by Napot Xiu on their way to conduct ceremonies at the site of Chichen Itza for the purpose of alleviating a severe drought that gripped the land during that year. The specific reference to 9 Imix as the day when the massacre was said to have taken place does not agree with the function assigned to the *-[i]ci* suffix; it should have been *-ic*, if the Colonial grammarians were right.

The use of *-[i]ci* in this context would make sense if the purpose of the contrast between the two suffixes had been to mark the difference between the immediate past (the past closest to the speaker or writer) and the historical past (the past at some remove from the speaker or writer). That would have permitted *-ic* alone to serve as the marker of the immediate past and *-i* in *[i]c-i* as the marker of the historical past.

On the other hand, the Chronicle of Chac Xulub Chen (now known as Chicxulub) contains examples of the use of *-ici* and *-ic* with intransitive stems in focused adverbial contexts that clearly assign *-ic* to a specific day in the past and *-ici* to a temporal span longer than a single day;

- (119a) t uy oxlahun pis u kinil u de octubre de 1518
 'on the thirteenth day of the month of October of 1518,

ocic ha t u jolob in mektan cahilob
 the subjects of my town were baptized⁶ (CHX-387A-C)

- (119b) 1521 años t uy oxlahun u kinil agosto
 '1521 years, on the thirteenth day of August,

chucic u lumil mexico t u men españolesob
 the land of Mexico was captured by Spaniards' (CHX-259B-E)

- (119c) oxlahun kan ah cuch hab ti maya xoc lae
 '13 Kan was the yearbearer in this Maya count;

1543 años lai y abil bincic españolesob te t xaman cheile
 1543 years, this was the year when Spaniards went there, south of [Tixcum]che' (CHX-278A-279B)

The days referred to in (119a–b) fell in 1518 and 1521, long before the composition of this chronicle, suggesting that "today" was not what the chronicler had in mind. The distinction here is one of specificity, the assignment of an event to a single day in a year, whereas only the year, 1543, corresponding to the second half of a Maya year that began on 13 Kan, is specified in (119c),⁷ not the day. In other words, *-ic* follows temporal adverbs that refer to a specific day, and *-ici* follows temporal adverbs that place events less precisely in longer periods of time.

There is, however, one passage in the Chronicle of Chac Xulub Chen that seems to contradict the generalization that *-ic* follows temporal adverbs that refer to a specific day:

- (120) t uy abil 1517 años lai y abil hauic c̄ha katun lae
 'in the year 1517 years: this was the year when the celebration of the katun stopped;

lai hauic u uacuntabal u tunil balcah
 this was when the world stones ceased to be set up' (CHX-248-250B)

This passage refers to the cessation of the custom of celebrating the end of the twenty-year period known as the katun by erecting a stela, an event that should have occurred during 1517. Since it did not happen, no date could have been associated with it.

Thus, the sources in which -ic and -ici are suffixed to intransitive stems seem to support two different sets of functions for these suffixes. In some cases, the contrast is based on how precisely an event could be placed in time (a single day or during a given year). In others, the distinction seems to have been phrased in terms of relative distance from the speaker or writer (the immediate versus the historical past).

The subjunctive suffix of intransitive verbs in focused adverbial constructions was -ebal in Colonial Yucatec, and, like the -ic and -[i]ci perfective suffixes of such verbs, it involved an ergative split in terms of a person hierarchy:

(121)	Singular	Plural
1st	<u>in</u> tal-ebal	* <u>ca</u> tal-ebal
2nd	* <u>a</u> tal-ebal	* <u>a</u> tal-ebal- <u>ex</u>
3rd	tal-ebal- <u>Ø</u>	tal-ebal- <u>ob</u>

The first-person singular and third-person singular and plural forms of talebal appear in context below:

- (122a) lauac ix ya in cah au oklal
 'y aunque estoy fatigado
 'and even though I am tired,

bin in talebal in tohcin au ol ca t u chij
 fuera por amor de vos a consolaros'
 I will come willingly to console you-all' (Ciudad Real 1600?: fol. 263v)

- (122b) ix ma kin bin talebal cimil c okol
 'sin pensar bendra la muerte sobre nosotros'
 'death will come over us unannounced' (Ciudad Real 1600?: fol. 229r)

- (122c) napul bin talebal vaye
 'derecho ha de venir aqui sin detenerse en otra parte'
 'he will come here directly' (Ciudad Real 1600?: fol. 324r)

- (122d) heuac t u men v num=yaob bin talebalob ɔejili nahal yani
 'furthermore, because their miseries will come, there are skimpy profits' (Kaua n.d.:I, 14L)

The other ergative pronouns (a and ca) that are not represented in (122a–d) appear with other intransitive stems in (123a–c):

- (123a) ma c ohel iual va çamal v kin
 'no sabemos si oy si mañana
 'we do not know if today or tomorrow

ca lukebal vay y okol cabe
 nos partimos deste mundo'
 we will leave this world' (Ciudad Real 1600?: fol. 227r)

- (123b) in nibi bin a hacebal
 'por orden y traza mia has de ser azotado'
 'by my order you will be whipped' (Ciudad Real 1600?: fol. 326v)

- (123c) lauac tab nail bin au ocebalex
 'en qualquiera c[a]sa que entraredes'
 'in whatever house you-all will enter' (Ciudad Real 1600?: fol. 263v)

In land surveys, -ebal was often suffixed to ben or bin 'to go':

- (124a) bay benebal ti lakin
 'thus it may go to the east' (OX595-023)
- (124b) hun tao binebal latulah t u hol noh laam ti chikin lae
 'it will go straight until the end of the big depression in the west' (OX683-043B-044B)

By 1700, there were occasional examples of -ebal being reduced to -bal:

- (125) ma bal bin ocbal ya tiob
 'nothing will inflict pain on them' (DZ700-031)

Other examples of the reduction of -ebal to -bal showed up in the middle of the nineteenth century in documents attributed to the Talking Cross of Chan Santa Cruz during the Caste War of Yucatan (1847–1853):

- (126a) t u men çoc u kuchul t ora likbal yucatan hum pulili
 'because already the hour has arrived for Yucatan to arise for once and for all!' (V. Bricker 1981a:192, lines 183–187)

- (126b) le c inv alic ti tech a mentex
 'that is what I say to you: you should do it

u tial manbal in noh man=kinalo
 so that my great festival might be celebrated' (V. Bricker 1981a:211–212n)

- (126c) t u men çoc u kuchul t u orail y t u habil
 'because already the hour and the year have arrived

xulbal u hach tus=beltal in familiaob chen de coca
 for the senseless exploitation of my kinsmen to end' (V. Bricker 1981a:204, lines 590–594)

In a letter written during that uprising on 2 April 1848, the Maya leader, Jacinto Pat, used the expression in talbal ‘that I might come,’ indicating that the ergative split in terms of the pronominal hierarchy was still in use at that date:

- (127) bay xan c in jaic y ohete a tzicbenil
 ‘thus also, I inform Your Excellency,

 de cuatro c in hokol vay t u cahhil hotzuc
 on the fourth [of April], I am departing from here in the town of Tihosuco

 y in tropa u tial in talbal t u cahil Peto
 with my troops in order that I might come to the town of Peto’ (HTZ848B)

More recently, there is evidence of the survival of the -bal suffix (as -b’ah) with b’in ‘to go’ in Sotuta:

- (128) letí? le ?àaviláa? čú?uk té?e yá?aškab’áo?
 ‘he, this Avila, was imprisoned there in Yaxcaba,

 té?e liinyah té?e hač té?e way hó?oh kàah
 there on the railroad line, just there, here at the entrance to town,

 u tyá?al u binb’ah hó?o?
 in order that it can go to Merida’ (SOT971B:3)

By 1971, when I recorded the text from which this sentence comes, the ergative pronoun *u* had replaced -Ø as the third-person subject of the verb. This process may already have been underway in the middle of the nineteenth century, for the document from which the *likbal*-Ø example in (126a) comes also contains an example of u likbal:⁸

- (129) ɔoc tun u kuchul t u orail t u habil
 ‘already, then, the hour and the year have arrived

 u tial u likbal in sihsah masevalilob ll okol ɔulob t u ca=ten
 for my Indian children to rise up against the Whites again

 hencen bixih cat lik bateil uchie
 in the way that wars used to arise’ (V. Bricker 1981a:191, lines 121–129)

5.2. TRANSITIVE STEM SUFFIXES THAT CO-OCCUR WITH FOCUSED ADVERBIAL PARTICLES. The movement of an adverbial particle or phrase to a position in front of an imperfective transitive stem did not result in a change in the stem suffix in Colonial Yucatec, paralleling, in this respect, the behavior of imperfective intransitive stems in similar contexts. The transitive imperfective suffix remained -ic in the focused environment:

- (130a) hach tibil ix v tzecticonob cuchi
 ‘and it was very good for them to preach to us then’ (MID567:fol. 365, lines 18–19)

- (130b) y oklal hach tibil u beelticob
'because they behave with great virtue' (MID567:fol. 367, line 81)
- (130c) bay licil av ubic v canile
'thus while you hear his story' (TXM578)
- (130d) lay natah oklal licil c oktic ca ba tech
'it was he who understood why we supplicate you' (TXM578)
- (130e) hi bicil c in conic hun ac in kax ti in yum ti señor cappⁿ Julia Baeza
'how I sold one lot of my forest to my lord, who is Mr. Captain Julia Baeza' (OX595-004A-C)
- (130f) bay licil yn tzolic yn testamento yn takyah than
'thus, while I place my last will and testament in order' (MA629-019A-C)

Another characteristic that adverbially focused transitives shared with their intransitive counterparts in Colonial Yucatec was the contrast between the immediate past and the historical past. The immediate past employed the same stem suffix (-ah) and aspectual clitic particle (t[i]) as the ones used for the unmarked word order:

- (131a) helel en 20 de Agosto ti y aabil de mil quinientos quarenta y uno
'today on the 20th of August in the year of 1541,

t in chicbesah v kaba haboob hoppic christianoil lae
I pointed out the names of the years when Christianity began' (Gordon 1913:17)
- (131b) 15 años hele t in cibtah uchci y utzcinnabal nucuch mullob t u men chiballob
'15 years today I wrote about how it happened that the big wall was restored by the lineages'
(Gordon 1913:15–16)
- (131c) helel en 20 de abril manic pasgua resuresion
'today on the 20th of April when Easter Sunday passed,

t in hoksah ho ppel libra sac cib hoolhun pis tumin
I withdrew five pounds of white wax for 15 coins' (HB783B-220A-221B)

On the other hand, the suffix(es) used for marking the historical past of transitive stems in adverbial focus constructions were the same as the ones used for marking intransitive stems under the same conditions ([i]ci):

- (132a) ocolbil v cimçici v lak
'a traycion mato a su compañero'
'treacherously, he killed his companion' (Ciudad Real 1600?: fol. 343r)
- (132b) on-teel haab in tzentici in yum
'muchos años sustente a mi padre'
'for many years, I supported my father' (Ciudad Real 1600?: fol. 351r)

- (132c) 1542 años oxlahun kan t u hun te pop
 '1542 years, 13 Kan was on the first of Pop,

u heɔci cah espanoresob
 when the Spaniards established a town' (XIU685-025A-C)

- (132d) hi bicil t u canticiob
 'however they related it' (TK590A-007A)

However, one of the texts in the Book of Chilam Balam of Chumayel has some striking exceptions to this pattern (Gordon 1913:60–62). My title for this text is "The Creation of the Maya Week" because it contains clear evidence that the person who composed it was interpreting the Biblical creation of the world in seven days in terms of one of their own time periods, namely the uinal of twenty days (V. Bricker 2002). The examples in (133a) and (133b) begin the count of the seven days in Genesis in terms of what happened on the days 1 Chuen and 2 Eb in the Maya calendar:

- (133a) hun chuen v hokɔci v ba t u kuil
 'on 1 Chuen, he revealed himself in his divinity,

v mentci caan y luum
 and he created the heaven and the earth' (Gordon 1913:60)

- (133b) ca eb v mentci yax eb
 'on 2 Eb, he created the first ladder' (Gordon 1913:60)

The -(i)ci suffix that appears in these examples is appropriate for a text that chronicles events in deep time, when the world began, but it is not the suffix that Spanish grammarians regarded as appropriate for an event that occurred on a single day (1 Chuen and 2 Eb). What is at issue here is the symbolic relationship between the days of the Maya uinal and the seven days of the European week, not that the events in question were limited to a 24-hour period of time. This may be the reason why the verbs in this text were marked by -(i)ci.

The apparent -ici suffix on the transitive verbs in (132a–b), (132d), and (133a) resembles the suffix on the intransitive verbs in (111a–b), and the -ci suffix on the transitive verbs in (132c–d) resembles the suffix on the intransitive verbs in (106b), (109), (110a–e), (115a–b), (116a–f), and (117). But -ic was (and still is) the imperfective stem suffix for transitive verbs in both word orders. Was it the source of the first part of the -ic-i suffix used for marking the historical past with transitive stems in Colonial Yucatec? Or was the use of -ic-i for the historical past with both transitive and intransitive stems the result of analogical levelling? In either case, -i could have served as a deictic enclitic, marking the historical past for both transitive and intransitive verbs in adverbially focused constructions.

Although not mentioned by the Colonial grammarians, there was another suffix that co-occurred with transitive stems in adverbially focused constructions. That suffix was -il, and the earliest evidence of its use comes from a document originating in Dzan in 1587:

- (134a) lay v chun v nupilen loe
 'this is the reason why he resisted me' (DZ587A-071)

Other examples of its use in later centuries include:

- (134b) va ix bicil v nukul y ohelil v kaxob ah couohob
 'as the reason why the Couoh people knew their forest' (DZ651B-107A-B)
- (134c) la ix bin v chun y ohelil v chi lay kax t u lal
 'and they say that this is the reason why everyone knew of the entrance to this forest'
 (DZ651B-111A-B)
- (134d) bay y ohelil t u lal u nukul uinicob
 'thus, all the senior men knew it' (KNX784A)

-il did not completely replace -ah with transitive stems in adverbially focused constructions until recent times. The following examples of the use of this suffix today come from the Hocaba dialect of Modern Yucatec:

- (135a) b'ey t in hač'ilēčō?
 'thus I saw you' (elicitation notes 1979)
- (135b) b'ış t a hač'ilēn
 'how did you hit me?' (V. Bricker 1981b:118)
- (135c) máʔalob' t aw il(ah)il
 'you saw him well' (V. Bricker et al. 1998:332)
- (135d) nàapul t uy ilil káʔah p'éel hóʔol yàan téʔelo?
 'he looked directly at two heads that were there' (Poʔot Yah n.d.b)

(135c) suggests that -il was originally suffixed to the t(i) ... -ah transitive stem that was used with both normal and adverbially focused word orders, distinguishing the latter from the former. Eventually, -ah-il was reduced to -il, but t(i) remained as the marker of the immediate past.

-il also occurred in transitive stems inflected for the present perfect in adverbially focused constructions in Colonial Yucatec:

- (136a) t uy alah v tʰan t u pormayl derechos
 'he mentioned the words in the tax forms,
- he bicil y ohelmalil v kaxob ah couoh yan ti kan=che lae
 how the Couoh people have known their forest that exists at Kanche' (DZ651A-012A-013C)
- (136b) he v nukul y ohelmalil v chi kax t u lal
 'here is the reason why everyone has known the entrance to the forest
- u tial ah couohob yan ti kan=che lae
 belonging to the Couoh people that exists at Kanche' (DZ651B-113A-D)

And the same is true of the Hocaba dialect of Modern Yucatec:

(137a) b'iš a hač'mahilen
'how have you hit me?' (V. Bricker 1981b:118)

(137b) b'ey a hač'mahileno?
'thus you hit me' (V. Bricker 1981b:119)

The subjunctive stem of transitive verbs in adverbially focused contexts was marked by -ic in Colonial Yucatec, the same suffix used for the unmarked transitive imperfective stem. bin was the aspectual particle that preceded it in remote future expressions, permitting it to be distinguished from the imperfective transitive stem, which co-occurred with different aspectual head words and clitic particles (see 2.2. above). The Calepino de Motul contains a few examples of the use of -ic in this context:

(138a) bay bin a nuppicex au ox=kaz olal loe
'thus you will resist those carnal desires of yours!' (Ciudad Real 1600?: fol. 339r)

(138b) vtzcín bay bin au alicé
'do as you say!' (Ciudad Real 1600?: fol. 41v)

(138c) ppococh bin a chooic a pixan
'you will cleanse your soul completely' (Ciudad Real?: fol. 391v)

(138d) bicx bin av utzcinic lo
'how will you improve that?' (Ciudad Real 1600?: fol. 437r)

(138e) hun chi ca chi bin in mol=cabtíc v tñan padre
'in one or two words I will summarize the priest's words' (Ciudad Real?: fol. 307v)

Such constructions do not appear in any Colonial documents in my database, and I have only one example of b'íin governing -ik in an adverbially focused context in Modern Yucatec:

(139) es yás keh t u láak uy á?aliko? b'íin y oheltiko?
'so it was that everything that they said, they would inform them of' (V. Bricker 1981a:239, lines 639–640)

6. THE VANISHING HISTORICAL PAST

The heyday of the distinction between the immediate past and the historical past must have predated the arrival of the Spaniards in the Yucatan peninsula during the first half of the sixteenth century. The surviving chronicles of events preceding and during the Conquest and continuing for several decades afterward imply a strong tradition of oral and written history that was not encouraged by the new masters. The use of the historical past in focused adverbial constructions was common in sixteenth-century documents, but tapered off during the seventeenth century and was gone before 1700. In constructions with the normal word order, the distinction lasted into the 1770s and disappeared after that.

What survived into Modern Yucatec are remnants of what was once the immediate past for both normal and focused word orders, namely the clitic particle *t-* and the *-ah* suffix with transitive stems and the occasional use of the *-ih* suffix with intransitive stems in the normal word order, as well as the *-il* suffix with transitive stems and the *-ik* suffix with intransitive stems in the focused word order. But these constructions no longer refer to the immediate past. They simply indicate that the events denoted by the verbs in such constructions have been completed, without specifying how recently they took place. In other words, the historical past is not what it used to be.

Both the historical past and the immediate past referred to completed actions, without any consideration of their internal characteristics. This was appropriate for a chronicle or an account book, in which the events in question were simply mentioned after their dates. Incidentally, this was the kind of information that was inscribed on historical monuments in hieroglyphs during the centuries before the Spaniards arrived.

But this is not the kind of history that speakers of Modern Yucatec recount today, which is delivered as narrative, not chronicle. And for that purpose, the completive aspect is often used for situating events in the past, but texture is provided by aspects based on the imperfective stem (the habitual, inceptive, durative, terminative, and proximate perfective) and/or, where relevant, aspects based on the subjunctive stem (the anterior or remote past). They make it possible to include details that were lacking in the chronicles and hieroglyphic texts.⁹

7. SUMMARY OF CHANGES IN ASPECTUAL HEAD WORDS AND SUFFIXES THROUGH TIME

Several aspectual particles and suffixes were gradually whittled away in the transition from Colonial to Modern Yucatec, reducing them to a single consonant (or even nothing), or, in the case of suffixes, were permitted to remain only at the end of phrases. The subjunctive suffix that was limited to root transitives in Colonial Yucatec was eventually replaced by the subjunctive suffix that had originally co-occurred only with derived transitive stems. Other losses include the suffix for the prophetic future, the distinction between the immediate and the historical past, and the almost complete disappearance of the periphrastic inflection of verbs that the Colonial grammarians had favored as “tenses.”

Another kind of change involved the eventual grammaticalization of two intransitive verbs that had served as aspectual head words in complement constructions in Colonial Yucatec. One of them also underwent the reduction to a single consonant of aspectual head words of non-verbal origin.

NOTES

1. Folio 164r of the *Calepino de Motul* (Ciudad Real 1600?) glosses *elom* as ‘that which will surely burn’ (*lo que se ha de quemar o arder sin falta*).
2. Itsaj and Mopan have retained a reduced form of the *-Vb* subjunctive suffix of Colonial Yucatec (phonetic [-Vbʔ]) with root transitives: *-Vʔ* (Hofling 2000:50, 2011:13).
3. According to Andrade (1940:3.2.1. and 4.66.), *?il-ah-ma(h)* is a variant of *?il-ma(h)*: *inw il-ah-ma* ‘I have seen it.’
4. *k’ab’éet* is the Modern cognate of the noun, *kabet*, in Colonial Yucatec (Ciudad Real 1600?: fol. 232r), which did not serve as a head word during the first part of the Colonial period. However, an example

of *kabet* in the Book of Chilam Balam of Chumayel suggests that it may have acquired that function before the end of the Colonial period:

ti hach *kabet* v bel y ocsabal ti ol
 'that it is very necessary that it be believed' (Gordon 1913:42)

5. *b'in* was not the only intransitive verb used in such constructions in Ebtun. The intransitive verb, *máan* 'to pass by, move,' was mentioned in the following sentence: *máan a ká?ahé?eš* 'you-all intend to wander from place to place' (V. Bricker 1979a:128).
6. *ocic t u jolob* [literally, 'water entered their heads'] was the standard expression for "baptism" chosen by Spanish priests, "which describes the manner of executing the sacrament" (Hanks 2010:130).
7. According to the Chronicle of Oxkutzcab, that year had begun in 1542 (H. Bricker and V. Bricker 2011: Table 4-1).
8. Of course, it is possible that *u likbal* is functioning as a possessed noun in this context: 'the uprising.' However, the structural parallels between (129) and (126c) and the thematic parallels between (129) and both (126a) and (126c) make it possible to interpret the presence of both *u likbal* and *likbal-Ø* in this document as evidence that the subjunctive stem of *lik* and other root intransitives was in the process of shifting to a completely nominative-accusative pattern of pronominal inflection in adverbially focused constructions.

In addition, there is some inconsistency in the use of the first-person singular pronoun with *-bal* intransitives in other documents attributed to the Talking Cross of Chan Santa Cruz, which use the suffixed pronoun (*-en*), instead of the clitic pronoun (*in*), of which the following are examples:

t u men tene mah membileni
 'because, as for me, I was not created;

lukbalen t u noh u kab in yum tac t uy ahaulil caan
 I left the right hand of my father in the kingdom of heaven

cat emen vay y okol cabe
 when I descended here in the world;

ti hocbalen t u cahil chichene
 I came out from the village of Chichen [Itza]' (V. Bricker 1981a:214–215, lines 231–238)

lukbalen and hocbalen contrast with the use of *in* *talbal* in (127).

9. Additional details were provided pictorially in the scenes that often accompanied the hieroglyphic texts.

CHAPTER 6

INTRANSITIVE VERBS

There are two kinds of intransitive verbs in Colonial and Modern Yucatec: root and derived. Root intransitives can form causative stems by suffixing -s or -es to the root, a characteristic that derived intransitives do not share.

1. ROOT INTRANSITIVES

1.1. VERBS OF MOTION. In considering what constitutes a root intransitive, it is instructive to begin with verbs of motion. The following examples of such verbs occur in both Colonial and Modern Yucatec:

(1)	Colonial	Modern	Gloss
	benel ~ binel	b'in	go
	emel	?éemel	go down, descend
	hokol	hóok'ol	come out, emerge
	hulel	?ú?ul	come, arrive here
	kuchul	k'(ù)učul	come, arrive
	likil	líik'il	arise, ascend
	lubul	lúub'ul	fall
	lukul	l(ù)k'ul	leave, withdraw, avoid, escape
	malel ~ manel	máan	pass by, move
	naacal	ná?akal	rise, climb
	ocól	?(ò)okol	enter
	pucul	púuç'ul	flee, elope
	talel	tàal	come

The data set in (1) suggests that intransitive roots could have several shapes in Colonial Yucatec: CVC, CVhC, and CV?VC. The Calepino de Motul specifies that, in the case of pucul 'flee, elope,' the accent fell on the first syllable (Ciudad Real 1600?: fol. 383r), confirming that it was heavy and implicating CVhC or CV?VC as its possible shape. Its Modern cognate, púuç', indicates that CVhC must have been the original shape. Similarly, the examples of ?éem 'go down, descend,' hóok' 'come out, emerge,' líik' 'arise, ascend,' lúub' 'fall,' and máan 'pass by, move' in Modern Yucatec must have developed from CVhC roots in Colonial Yucatec, even though the Calepino did not mark them as heavy by doubling their vowels or specifying that they were accented. On the other hand, the Calepino does mark the root vowel in naacal 'rise, climb' as heavy by

both doubling it and mentioning that it was accented (1600?: fol. 316r), but because the Modern cognate of this root intransitive is náʔakal, the shape of the root must have been CVʔVC, not CVhC. And by placing an accent on the second vowel in ocól 'enter,' the Calepino indicates that the root vowel must have been short (1600?: fol. 342v), as it is in the Hocaba dialect of Modern Yucatec. That vowel is lengthened and bears a low or falling tone when followed by a suffix other than -ol, as in h ʔòok'ih 'he entered' or ʔòoken 'enter!' in Hocaba and other western dialects (Blair and Vermont-Salas 1965:342–344). The root vowel is long and marked by a low or falling tone with both -VI and other suffixes in Ebtun in the eastern part of the peninsula and is indicated parenthetically in the relevant Modern cognates of the CVC root intransitives in (1).

The Calepino de Motul cites root intransitives with their imperfective stem suffixes, -el or -VI (V echoes the vowel in the root). -VI also serves as the imperfective suffix in Modern Yucatec, but -el does not. The -el suffix echoes the root vowel in benel, the earliest form of binel, and may have been retained for that reason, but that cannot be the explanation for the use of -el in hulel, malel/manel, and talel. It disappeared with b'in 'go' and máan 'pass by, move' some time after the middle of the nineteenth century and seems to have been subsumed in the root in ʔúʔul 'come, arrive here' and tàal 'come' in Modern Yucatec.

Some examples of the use of -el with these root intransitives are shown in (2) below:

- (2a) can vao in benel ti ppolmal te bak=halale
'four times I was going as a merchant to Bacalar' (DZ587A-046A-B)
- (2b) bay v binel ti chikine
'thus it goes to the west' (SB596C-220)
- (2c) ma tan y ulelob v chayan talob te t u luumil castillae
'the rest who came from the land of Castille there are not arriving here' (KC567-026A-C)
- (2d) hauex a ba licil v malel padre
'open a path for the priest to pass!' (Ciudad Real 1600?: fol. 178r)
- (2e) hex na cul pox lae ych cah Mayapan v talel ca u hecch lum Chichi=can
'and this Na cul Pox here, he was coming from the city of Mayapan when he established the land of Chichican' (DZ569-026-027)

The perfective stems of these verbs (and all other root intransitives) were marked by -i (phonetic [-ih]) in Colonial Yucatec:

- (3a) ca bin*i*ob ti cah tikal
'then they went to the town of Tikal' (TK590A-012)
- (3b) hek lay v kabaob al=mehenob hul*i*ob vay ti cah lae
'here are the names of these nobles who arrived here in the town' (MA557-017A-B)
- (3c) ca ix man*i* ti ma v heah v chij y et=un lae
'and he passed by where he had been without opening his mouth' (Ciudad Real 1600?: fol. 422v)
- (3d) tal*i* ti chikin
'it came from the west' (MA596-010)

The subjunctive stems of all root intransitives were consistently marked by -Vc (phonetic [-Vk]; V echoes the vowel in the root), but the suppletive form, xijc (phonetic [šʔik]), served as the subjunctive stem of bin ‘go’:

- (4a) ca ix t inu alah u xicin t u lalac reg^{or}sob y testigosob
 ‘and then I informed all the councilmen and witnesses
 ca xicen yn ximbal t u pach
 that I would go walking with them’ (SB596C-212A-213A)
- (4b) laacx ca huluc padre vaye
 ‘if only the priest would arrive here’ (Ciudad Real 1600?: fol. 258v)
- (4c) ti yan mul=tun y icnal u xethel pak manac y ok be
 ‘there is a mound there next to the piece of wall that passes above the road’ (SB596C-269A-270)
- (4d) t u men num=ya bin talacob
 ‘because miseries will come’ (Tizimin n.d.: fol. 21v)

1.2. OTHER ROOT INTRANSITIVES. Some root intransitives that are not verbs of motion appear in (5):

(5)	Colonial	Modern	Gloss
	áhal	ʔ(à)ahal	wake up
	cáanal	káʔanal	tire, become tired
	cimil	kíimil	die
	çihil	síihil	be born
	ɔocol	ʔ’óʔokol	end, finish
	elel	ʔ(è)elel	burn
	helel	héʔelel	rest
	hoppol	hóʔop’ol	begin
	kaahal	k’áahal	remember
	tuubul	túʔubul	forget
	uenel	w(è)enel	sleep

In this list, ʔ’óʔokol ‘end, finish,’ héʔelel ‘rest,’ hóʔop’ol ‘begin,’ káʔanal ‘tire, become tired,’ and túʔub’ul ‘forget’ would have had a CVʔVC shape in Colonial Yucatec; the Calepino places an acute accent on the first syllable of one of them (cáanal) (Ciudad Real 1600?: fol. 65r), doubles the vowel in another (tuubul) (1600?: fol. 427v), and mentions that the first syllable of a third example is accented, without placing an accent over the vowel (ɔocol) (1600?: fol. 131v). Only three root intransitives in this list could have had a CVhC shape: cimil ‘die,’ çihil ‘be born,’ and kaahal ‘remember.’ The vowel in the first syllable of kaahal is doubled, and the Calepino specifies that it bears an accent (1600?: fol. 233r). The other two examples are not singled out for such marking in the Calepino.

The acute accent over the vowel in the first syllable of áhal ‘wake up’ implies that it was stressed in Colonial times (1600?: fol. 4r). The first syllable of ʔahal is not stressed in the Western dialects of Modern Yucatec, but it does have a long vowel and low or falling tone in the dialect of Modern Yucatec spoken in Ebtun. áhal is one of the rare bits of evidence that the vowel in some CVC roots was being lengthened and acquiring low tone after high tone appeared in Colonial Yucatec (see **2.3.2.3.** in Chapter 3).

2. DERIVED INTRANSITIVES

Intransitive stems are derived from several kinds of roots in Colonial and Modern Yucatec: transitive verbs, adjectives, nouns, and particles. The ones derived from root transitives represent the passive, antipassive, and middle voices of such verbs. The intransitive stems derived from adjectives, nouns, and particles are known as inchoatives or versives. Other intransitives can be derived from derived transitives. There are, in addition, a suffix, *-p*, that derives agentless passives from various form classes, including root transitives, root intransitives, nouns, and adjectives, and a suffix, *-k'*, that converts root transitives, root intransitives, positionals, and nouns into celeritive stems.

2.1. DERIVED INTRANSITIVES BASED ON ROOT TRANSITIVES. The passive stems of transitive roots were marked by *-b* (phonetic [-b']) in Proto-Yucatecan. The Calepino de Motul contains evidence that, by the second half of the sixteenth century, that suffix had largely been reduced to a glottal stop and had metasitized with the final consonant of the root, generating a CV?VC passive stem that was identical to that of CV?VC root intransitives (cf. **2.3.2.1.** in Chapter 3 and **1.1.2.** in Chapter 7). The middle voice stem was produced by infixing [h] in transitive roots; the resulting CVhC stem had the same shape as CVhC root intransitives (cf. **2.3.2.2.** in Chapter 3 and **1.1.4.** in Chapter 7). Only the antipassive stem was marked by a suffix, *-n*, that did not change over time (cf. **1.1.3.** in Chapter 7).

2.2. INCHOATIVES OR VERSIVES. Although the term “inchoative” has often been used to refer to the act of becoming (as in “x becomes y”), its literal meaning is “to begin to do something,” a function handled by the head word for inceptive aspect, *hopp* (phonetic [hó?op']), in Colonial and Modern Yucatec (cf. **2.2.** in Chapter 5). For this reason, some Mayanist linguists prefer the term “versive” to refer to acts of becoming. However, “inchoative” is used for “becoming” as well as “beginning” in some classical languages, such as Greek and Latin (Judith M. Maxwell, personal communication, 20 April 2009), perhaps justifying my continuation of the tradition in Maya studies of using “inchoative” for what some linguists call “versive.”

Inchoative verbs were derived from several kinds of roots in Colonial Yucatec by *-h*, *-ch-ah* (phonetic [-č-ah]), and *-tal*. *-h* was employed much more frequently than the other suffixes for this purpose in the Calepino de Motul, but appears in only three inchoative stems in Modern Yucatec, having been replaced by the other suffixes in other inchoative stems.

2.2.1. INCHOATIVES DERIVED WITH -H. Inchoative stems derived from adjectival, nominal, particle, and transitive roots appear as entries in the Calepino de Motul with their imperfective stem suffix, either *-al*, *-il*, or both, indicating that the vowel in the suffix was schwa (cf. **2.3.3.** in Chapter 3 and V. Bricker and Orie 2014). Some examples of this variation in the imperfective stems of inchoatives derived from the adjectival roots, *ceel* ‘cold,’ *çak* ‘itchy, itching,’ *yij* ‘ripe (fruit ready for harvesting from tree),’ *netz* ‘mean, vile, despicable, stupid,’ *tam* ‘deep, serious,’ *tu* ‘stinky, rotten,’ and *utz* ‘good, just, well made,’ appear in (6) below:

(6)	<u>-h-al Variant</u>	<u>-h-il Variant</u>	<u>Gloss</u>
	ceelhal	ceelhil	feel, be cold
	çakhal	çakhil	itch
	yijhal	yijhil	ripen (fruit on tree)
	netzhal	netzhil	become mean, vile, despicable, rude, uncouth
	tamhal	tamhil	become deep
	tuhhal	tuhil	stink, rot
	utzhhal	utzhil	recover, improve

Adjectival roots are the source of ca. 65 percent of the inchoative verbs listed in the Calepino de Motul. Only ca. 17 percent are derived from nouns, and particles and root transitives are each responsible for about nine percent of the inchoative verbs in that work.

The perfective stem of -h inchoatives was marked by -i (phonetic [-ih]). The subjunctive stem suffix that occurred with such inchoatives is not mentioned in the Calepino de Motul, nor in any document in my database.¹ The inchoative derived from the adjectival root, cet 'equal, even; jointly, together,' is exemplified in context with the two aspectual stem suffixes for which I have information in (7a–b):

- (7a) chicul t u men Ds. licil u lah cethal
 'it was a sign by God while they were conjoining [referring to the conjunction of the sun and the moon]' (Gordon 1913:270)
- (7b) ti cethi u tñanobi
 'there their words became adjusted' (Gordon 1913:10)

Another pair of contrastive examples is derived from the particle yan 'there exists':

- (8a) ti tali u yanhal y ahaulil bal=cahi
 'the kingdom of the world came into existence' (Tizimin n.d.: fol. 17v)
- (8b) ca binob t cahtal chakan=putun ti yanhi y otochob ah ytzaob
 'then they went to settle [at] Champoton where the homes of the Itzas existed' (Tizimin n.d.: fol.18v)

Other examples of the imperfective and perfective inflection of -h inchoatives derived from the adjectival roots, yaab 'much, many, often,' koch 'true, infallible, certain,' and utz 'good, just, well made,' from the transitive root, lob 'hurt, harm, damage,' and from the nominal root, xak 'mixture of many things,' are shown in (9a–e):

- (9a) in cechtah v yaabhal v bal in ba
 'I strongly wished that my possessions would increase' (Ciudad Real 1600?: fol. 69r)
- (9b) ma tan v kochhal in vayak
 'my dream is not coming true' (Ciudad Real 1600?: fol. 250r)
- (9c) lic va v lobhal t a ich v tzayomtic y otoch ku au et=vinicil
 'does it upset you that your neighbor frequents the church?' (Ciudad Real 1600?: fol. 115r)
- (9d) vtzhi yanumal Ju.^o v pectzil y icnal ahau
 'John pleased the king' (Ciudad Real 1600?: fol. 443v)
- (9e) ti xakhi u pol
 'her hair became mussed' (Ciudad Real 1600?: fol. 455r)

The imperfective stem in -hal did not survive into Modern Yucatec, nor, indeed, into the other daughter languages of Colonial Yucatec: Itsaj, Mopan, and Lacandon. Mopan retained the perfective stem in -(a)hih (Hofling 2011:16), but paired with a -tal imperfective stem, of which there were only a handful of examples

in the Calepino de Motul (see 2.2.3. below). The perfective suffix, -hi, has fared only slightly better through time. There are still traces of its use with the particles, šàan ‘slowly’ and yàan (or ?an) ‘there exists,’ and with a root of unknown origin, páat ‘able,’ in Modern Yucatec:

- (10a) ti? le b’á?áš ?épokáil túun porkeh šàanhih k u kaškó?ob’ leti? e ǵ’òonó?ob’ pàarkeh
‘for in that epoch then, because it took time for them to exchange those guns and

b’á?atakil u tyá?al beliséo? y éetel čikleh
bullets in Belize for chicle’ (SOT971B:17)

- (10b) ti? e semàanáa? yanhiih hun p’éel bàayléi?
‘during this week, there were some dances;

yanhih miisah ká?ah p’éeh miisah
there were Masses, two Masses’ (PEN971:5)

- (10c) t u p’atah uy atan ká?ah ?anhih u č’í?ik u yàanal kó?oleh
‘he left his wife and took another woman’ (HOC971B:3)

- (10d) páathih in t’àn
‘I could speak’ (V. Bricker et al. 1998:209)

2.2.2. INCHOATIVES DERIVED WITH -CH-AH. Many fewer -ch-ah inchoatives (N = 35) than -h inchoatives (ca. 112) appear in the Calepino de Motul. They are derived from adjectival, nominal, transitive, intransitive, particle, and onomatopoeic roots and are listed as entries with their imperfective stems. Among them are five sets of inchoatives that are derived from the same root (ceel ‘cold,’ çayal ‘twist, dislocate, fracture,’ yaom ‘pregnancy,’ ma ‘no, not,’ and uk ‘drink’) with both -ah and -ch-ah suffixes:

(11)	<u>-h Inchoative</u>	<u>-ch-ah inchoative</u>	<u>Gloss</u>
	ceelhal/ceelhil	ceelchahal	feel, be cold
	çayahal	çaychahal	become dislocated
	yaomhal	yaomchahal	become pregnant
	maachal	macchahal	cease, stop
	ukahal	ukahchahal	be thirsty

The aspectual suffixes that co-occurred with -chah ((phonetic [-čah]) inchoatives in Colonial Yucatec were -al (imperfective), -i (phonetic [-ih/-Ø], perfective), and -ac (phonetic [-ak], subjunctive). Their use is exemplified contextually by the inchoative stems derived from the transitive root, muc ‘bury, hide, conceal, cover up in hole’:

- (12a) vac muluc vchci v mucchahal kopob t u lalal
‘on 6 Muluc was when the valleys were becoming buried, all of them’ (Gordon 1913:61)

- (12b) ca mucchahjob t u yam sus t u yam kak=nab
‘then they became buried in the waves of sand, in the waves of the sea’ (Tizimin n.d.: fol. 12r)

- (12c) bin mucchahac ah tubul vah ah tubul ha
 'the forgotten bread, the forgotten water will be buried' (Tizimin n.d.: fol. 14r)

Other sentences containing inchoatives derived from the adjectival roots, ceel 'cold' and uij 'hungry,' and the transitive root, uec 'spill, scatter, shed' appear in (13a–c) below:

- (13a) ca kuchob caucel ti ceelchahobi
 'when they arrived in Caucel, they became cold' (Gordon 1913:6)
- (13b) t u chij ca çukini c ah lohil ti ca=kal kin ca tun vijchahi
 'as Our Savior fasted for forty days, after which he became hungry' (Ciudad Real 1600?: fol. 68r)
- (13c) uaxac ahau paxci u cabobi ca uecchahi ti peten t u lalal
 'on 8 Ahau, their town was abandoned, and they became scattered throughout the peninsula' (Gordon 1913:78)

Some contextual examples of the use of these aspectual suffixes in Modern Yucatec include:

- (14a) ç'ó?ok u b'ak'čahal le sùumo?
 'that rope has become wound' (V. Bricker et al. 1998:25)
- (14b) ç'ó?ok u wóolčahal in k'èeyem
 'my posol has become formed into a ball' (V. Bricker et al. 1998:307)
- (14c) táan u šéehčahal le sùum t u mèn le pèek'o?
 'that rope is being vomited on by that dog' (V. Bricker et al. 1998:256)
- (14d) le pú?uko? lùuk'čahih
 'that hill became muddy [from mud slide]' (V. Bricker et al. 1998:175)
- (14e) páahčah in t'àan
 'I could speak' (V. Bricker et al. 1995:209)
- (14f) má? má?alob'čahaki?
 'he has not recovered' (V. Bricker et al. 1998:176)

2.2.3. INCHOATIVES DERIVED WITH -TAL. Already in the second half of the sixteenth century, the Calepino de Motul contained a handful of examples of inchoatives with the -tal imperfective suffix:

- | | | |
|------|------------------------|---------------------------------|
| (15) | <u>-tal Inchoative</u> | <u>Gloss</u> |
| | hahtal | verify, confirm |
| | hittal | become loose, unfastened (load) |
| | pettal | become round, circular |
| | tohtal | become straight |

Of these, only *hahtal* and *tohtal* have cognates in Modern Yucatec, *hàahtal* also has a *hàahčahal* alternative, and *hitčahal* does not have a **hittal* alternative (V. Bricker et al. 1998:94, 106, 248). By the end of the eighteenth century, four more *-tal* inchoatives have shown up in Colonial texts, all of which co-exist with stems ending in *-čahal* in Modern Yucatec (V. Bricker et al. 1998:5, 70, 190, 243–244):

(16)	<u>-tal Inchoative</u>	<u>Gloss</u>
	<i>chichtal</i>	become strong
	<i>mumtal</i>	become soft
	<i>sebtal</i>	become sudden
	<i>yantal</i>	exist

They are shown in context below:

- (17a) *ti u hach chichtal u tanlabal diosi*
 ‘there the serving of God was becoming very strong’ (Gordon 1913:95)
- (17b) *muan 22 abril lic v mumtal v nak v caanil kini*
 ‘Muan, 22 April, when the sun in the middle of the sky was becoming soft’ (Gordon 1913:28)
- (17c) *ti u sebtal u talel ah vaymillob čhaic u toh ti bal=cahi*
 ‘when suddenly the men of Uaymil were coming to wreak vengeance in the world’ (Gordon 1913:92)
- (17d) *ti yan luum vchic v yantal v pakali*
 ‘here is the land where his garden exists’ (Gordon 1913:28)

Of these, *yantal* already had a *yanhal* alternative with the same meaning (cf. the example in [8a] above).

At least three more *-tal* inchoatives were in common use by the middle of the nineteenth century:

(18)	<u>-tal Inchoative</u>	<u>Gloss</u>
	<i>pattal/pahtal</i>	be able
	<i>sayabtal</i>	reproduce, increase
	<i>utztal</i>	recover, improve

The first two inchoatives also have *-čahal* imperfectives in Modern Yucatec; the third does not.

Almost all inchoatives in the Hocaba dialect of Modern Yucatec have imperfective stems in both *-tal* and *-čahal*, but only *-čahih/-Ø* and *-čahak* perfective and subjunctive stems, respectively. In other words, they lack unique perfective and subjunctive counterparts of the *-tal* imperfective stem.

Originally, there seem to have been two sets of inchoative stems, one marked by *-h* and the other by *-chah*. Eventually, *-tal* replaced the *-hal* imperfective stem, but continued to be paired with the *-hi* perfective stem (as is still the case in Mopan [Hofling 2011:16]). In a later development, *-chahi* replaced *-hi* in all but a few inchoatives, and those that retained *-hi* also have *-chahi*, as is the case in the following examples of *páat* ‘be able’ in Modern Yucatec (V. Bricker et al. 1998:209):

- (19a) *máʔa t u páahtal in meyah*
 ‘I can’t work’

(19b) páathih in t'àan
'I could speak'

(19c) páahčah in t'àan
'I could speak'

The same is true of inchoative stems derived from yàan 'there exists':

(20a) b'ey túun ?úučik u yantal k líibèertàado?
'in this way there happened to be our liberty,

ká?ah yančah pàas túun
and there was peace then' (CHC971B:13)

(20b) ti? e semàanáa? yanhih hun p'éel bàayléi?
'during this week, there were some dances' (PEN971:5)

(20c) čéen siinkoh in pàalal yančahih
'I had only five children [literally, there were only five children of mine'] (EBT979A)

There is some evidence that -tal and -čahal have different functions in Modern Yucatec. -tal seems to be the imperfective suffix of choice when the verb refers to an accidental, temporary, or extrinsic change in the subject; -čahal implies that the change is intrinsic and permanent (Kathleen Carlin, personal communication, 1974). Thus táan u čaktal means 'she is blushing,' whereas táan u čakčahal means 'it is turning red (and ceasing to be white).' This semantic distinction applies only to adjectival roots (-tal and -čahal have the same meaning when suffixed to derived adjectival stems and derived nominal stems), and it is neutralized in perfective and subjunctive inchoatives, where the corresponding derivational morpheme is exclusively /č/.

2.3. CELERITIVES. In Modern Yucatec, -k'ah is a productive suffix that derives celeritive verbs from root transitives, root intransitives, positionals, and nouns. It refers to actions that occur suddenly without apparent cause and, therefore, represents a kind of agentless passive (Blair and Vermont-Salas 1967:760; cf. **2.4.** below).

The Calepino de Motul lists only eleven verbs with the Colonial cognate of this suffix, -kah:

(21)	Celeritive	Gloss
	balkahal	become hidden, forgotten; disappear
	balkahal	roll over; upset (vessel)
	coolkahal	become loose (tied object), rickety, disconnected
	čamkahal	run out completely
	lickahal	trip over stone or something (foot); fall into snare or trap
	lubkahal	go about falling and getting up again
	mankahal	pass quickly or suddenly; forget
	namkahal	lose sight; be forgotten
	pitkahal	slip, slide
	uaçkahal	turn around [suddenly ?]
	ualkahal	return

The aspectual suffixes that followed -kah (phonetic [-k'ah]) in Colonial Yucatec were -al (imperfective), -i (perfective), and -ac (subjunctive). Of them, -al is attested only in the Calepino (cf. [21]). For the perfective stem, the Calepino contains five example sentences, of which the following are representative:

- (22a) lichkahi uoc ti ak
'my foot tripped over a vine' (Ciudad Real 1600?: fol. 268r)
- (22b) mankahi kin
'the sun set quickly [so that one cannot see]' (Ciudad Real 1600?: fol. 298r)

The subjunctive stem is represented in a sentence from the Book of Chilam Balam of Kaua:

- (22c) ua ma cimie bin ualkahac eticoil pulmonia t u men
'if he did not die, it will develop into consumptive pneumonia because of it' (Kaua n.d.:II, 29R)

More than 150 celeritive examples are listed in the Hocaba dictionary of Modern Yucatec, of which the following constitute a representative sample:

(23)	Celeritive	Gloss
	b'uhk'ah	split suddenly
	č'ošk'ah	twist suddenly
	hahk'ah	slip suddenly
	k'onk'ah	collapse
	l'ilk'ah	shake violently
	močk'ah	stumble
	sutk'ah	revolve suddenly [once]
	tahk'ah	stick suddenly
	wahk'ah	explode suddenly

Some contextual examples of the aspectual stem suffixes—-al (imperfective), -ih/-Ø (perfective), and -ak (subjunctive)—with -k'ah in Modern Yucatec appear in (24a–e) below:

- (24a) yan ?òorah b'ey k u kačk'ahal u b'àakel im pàače?
'sometimes it feels like the bones in my back will snap' (Blair and Vermont-Salas 1967:746)
- (24b) ø'ó?ok u č'ošk'ahal inw òok
'my foot twisted suddenly' (V. Bricker et al. 1998:87)
- (24c) b'á?aş ten háan sutk'ah eč hoseh
'why have you returned so quickly, José?' (Blair and Vermont-Salas 1967:787)
- (24d) šmàase? le ká?ah lúub'e? šit'k'ahih
'as for Marcella, when she fell, her legs spread apart suddenly' (V. Bricker et al. 1998:259)
- (24e) ká?ah b'uhk'ahak
'it might split suddenly' (V. Bricker et al. 1998:347)

2.4. AGENTLESS PASSIVES. Agentless passives are semantically similar to the middle voice stems derived from root transitives in the sense that they do not specify an agent, but they can be derived from other kinds of roots, including nouns, adjectives, and root intransitives, as well as from many root transitives. They are marked by the derivational suffix, *-pah*, in both Colonial and Modern Yucatec.

The Calepino de Motul lists 41 agentless passives as entries with their imperfective suffix, *-al*, some of which are shown in (25):

(25)	<u>Agentless Passive</u>	<u>Gloss</u>
	cinpahal	get wounded
	chunpahal	get begun, founded
	çutpahal	turn around
	hatzpahal	get divided, separated
	hecpahal	lie across
	kazpahal	become mean, vile
	nocpahal	overturn, capsize, spill
	ticpahal	unravel, riot, come undone
	tochpahal	stumble
	xotpahal	get cut, fixed, determined

The perfective and subjunctive stems were marked by *-i* and *-ac*, respectively in Colonial Yucatec.

Almost half of the agentless passives listed in the Calepino de Motul were derived from root transitives (N = 18). Of them, three were derived from CV? roots that do not have middle voice stems, and six from other transitive roots that also lack such stems. The remainder have both middle voice and agentless passive stems, whose functional difference is unclear.

In (26a–d) appear some contextual examples of agentless passives in Colonial Yucatec that illustrate the use of the three aspectual suffixes with these verbs:

(26a) can ix uchci u nixpahal caan y luum
 ‘on 4 Ix was when the sky and the earth got tilted’ (Gordon 1913:61)

(26b) hunac v tochpahalob
 ‘they stumble constantly’ (Ciudad Real 1600?: fol. 195v)

(26c) çutpahi v tñanab vinicob
 ‘he turned around to address the people’ (Ciudad Real 1600?: fol. 113r)

(26d) t u chi v kax ah camalob sutpahac ti chikin t u chi v kax ah vcil vinicob
 ‘from the edge of the forest of the Camal people it might turn around to the west to the edge of the forest of the Uc people’ (MA629-059-060C)

I have much richer data on agentless passives for Modern Yucatec acquired from elicitation that makes it possible to distinguish them semantically from mediopassives derived from root transitives more clearly. The conditions that affect the subjects of mediopassives have no apparent cause, whereas agentless passives refer to conditions whose cause, if there is one, is not mentioned. In that sense, agentless passives cover a broader semantic domain than both mediopassives and agentive passives (whose agent is mentioned in the sentences in which they appear). Furthermore, unlike mediopassives and agentive passives,

agentless passives can be derived from non-transitive roots and stems. Therefore, they are more common than passives that are derived from root and derived transitive stems.

The Hocaba dictionary lists 309 agentless passives, of which 56 percent (N = 174) are co-listed with middle voice stems. The rest are derived from CV? transitives and other kinds of roots. The following examples illustrate semantic differences between middle voice and agentless passive stems:

(27)	Middle Voice	Gloss	Agentless Passive	Gloss
	b'íil	curl up	b'ílpah	get hemmed, edged
	b'úuh	split, part	b'uhpah	get split
	číin	bend	číimpah	get bent
	háak	slip	hakpah	get lowered, slip
	kúuy	accumulate, harden, settle	kuypah	get hard
	k'éem	twist	k'empah	get twisted
	péeč'	crush, smash	peč'pah	get crushed, smashed
	p'íič	stare	p'íčpah	pop out
	šóol	cut	šolpah	get cut
	táak'	stick, adhere	tak'pah	get stuck
	wéek'	fall to pieces	wek'pah	get dashed to pieces

The glosses imply that the agentless passives are vaguer than the mediopassives, encompassing the possibility that, for example, kuypah could refer to an object that became hard, with or without an agent.

The aspectual suffixes that co-occur with agentless passives in Modern Yucatec are -al (imperfective), -ih/-Ø (perfective), and -ak (subjunctive). In the following contextual examples of their use, only p'íčpah 'pop out' has a middle voice counterpart, p'íič 'stare.' The rest are derived from root transitives without such counterparts and other kinds of roots:

- (28a) túʔuʃ k u šáʔaypahal le b'eho?
'where does that road fork' (V. Bricker et al. 1998:255)
- (28b) ʔ'óʔok u héʔepahal le hòo=naho?
'that door already opened' (V. Bricker et al. 1998:100)
- (28c) háʔatpah inw òok
'my foot got scratched' (V. Bricker et al. 1998:99)
- (28d) p'íčpah uy ič
'his eyes popped out' (V. Bricker et al. 1998:229)
- (28e) káʔah č'ulpak
'it might get wet' (V. Bricker et al. 1998:347)

3. OTHER INTRANSITIVES

Two other kinds of intransitives, positionals and affects, have unusual semantic properties that merit separate treatment. They are discussed in detail in Chapters 11 and 12.

4. PLURALIZATION

The suffix, -ob, marked the plural subjects of intransitive verbs and in that sense implied repeated action (see 1.1. in Chapter 4). In addition, there was a distributive plural suffix, -lahal, that specified that such actions took place one after another, instead of concurrently. The distributive plurals, ma(n)lahal and tublahal, based on the root intransitives, malel/manel 'to pass, pass by, move' and tuubul 'to forget,' are listed as entries in the Calepino de Motul, as well as maclahal and taklahal, which are based on the passives, maacal 'to be covered, enclosed' and taakal 'to be fastened, stuck, adhered.' The imperfective (-al) and perfective (-i) stems of manlah appear in the following sentences in the Calepino:

- (29a) hi=bal tac v tacapil be lic v manlahal
'however many obstacles they pass [one by one] on the road' (Ciudad Real 1600?: fol. 399r)
- (29b) ma a ca=kalic² a baex t a kebanex manlahie
'don't repeat your past sins that passed one by one!' (Ciudad Real 1600?: fol. 63r)

An account of a smallpox epidemic in the Book of Chilam Balam of Tizimin mentions the use of the distributive plural with two other root intransitives, cim 'to die, expire' and lub 'to fall':

- (30) bin yanac chocuili
'there is going to be fever there;
- laobi ooxe
as for those scabs,
- ti v cimlahal no[h] xi[b] cabobi
there the old men of the land die one after another;
- bin lublahac kaki
pox will fall one after another there,
- bin ix hokoc nucuch kak y okol uinicob
and there will emerge a great pox over people' (Tizimin, n.d.: fol. 21v)

The imperfective stems of the same root intransitives are still in use in Modern Yucatec:

- (31a) táan u kíimláhahal im pak'al
'my plants are dying one after another' (V. Bricker et al. 1998:128)
- (31b) t u lúub'láhahal le če'o?
'those trees are falling one after another' (V. Bricker et al. 1998:173)

5. INTRANSITIVE COMPOUNDS

The relational noun, *et* (phonetic [ʔéet]), when combined with intransitive verbs, resulted in compounds that referred to the action being performed in the company of others (Ciudad Real 1600?: fol. 166r), as in the following examples:

(32)	Intransitive			
	<u>Root</u>	<u>Gloss</u>	<u>Compound</u>	<u>Gloss</u>
	ben	to go	<u>et</u> =ben	to accompany
	cim	to die, expire	<u>et</u> =cim	to die together
	em	to descend, come down	<u>et</u> =em	to descend together
	hok	to come out, emerge, appear	<u>et</u> =hok	to emerge, appear together
	mal	to pass, pass by, move	<u>et</u> =mal	to pass where others pass, participate

Their use in context can be illustrated with the following examples based on *et*=mal:

(33a) *çaati Pedro t u men v lobil tij uil et=malech*
 'Peter got lost because of the evil there where you passed' (Ciudad Real 1600?: fol. 168v)

(33b) *bacac-ix t u hunali ca yax yumob çipobe*
 'and because our first fathers sinned,

tij tacaanoni tijx et=malon con y al v mehene
 we who are their children engaged in their sins' (Ciudad Real 1600?: fol. 399r)

Other intransitive compounds were formed by combining an adjective instead of a noun with an intransitive root:

(34)	Adjectival	Intransitive	
	<u>Root</u>	<u>Root</u>	<u>Compound</u>
	çuu	kuch	çuçu=kuch
	'thick, dense'	'to come, arrive'	'to frequent a place'
	yam	hul	yam=hul
	'first, before'	'to come, arrive'	'to come first'
	yam	tal	yam=tal
	'first, before'	'to come'	to arrive early'
	lob	cim	lob=cim
	'bad, evil'	'to die, expire'	'to die badly'
	pot	hok	pot=hok
	'very'	'to come out, emerge, appear'	'to be manifest'

pot 'very'	mal ~ man 'to pass, pass by, move'	pot=mal ~ pot=man 'to exceed, surpass, excel'
taɔ 'straight, continuous'	mal ~ man 'to pass, pass by, move'	taɔ=mal ~ taɔ=man 'to skirt'

The following examples illustrate the use of such compounds in context:

- (35a) pot=mani v lobil y okol v lobil v yum
'his evil exceeded the evil of his father' (Ciudad Real 1600?: fol. 381v)
- (35b) ma a yam=talel
'don't come too early!' (Ciudad Real 1600?: fol. 214r)
- (35c) macx yam=huli tech va Pedro xin
'who came first, you or Peter?' (Ciudad Real 1600?: fol. 214r)
- (35d) bin taɔ=manac
'he will pass by' (Ciudad Real 1600?: fol. 402r)

Note that, in (35b), the clitic pronoun, a, precedes the compound. If the adjective precedes both the clitic pronoun and the verb, it does not form a compound, as in (36):

- (36) taɔ a benel chi koben
'go straight to the kitchen!' (Ciudad Real 1600?: fol. 402v)

Here, the emphasis is on going straight, not moving around an object, as in (35d).

The Calepino de Motul contains two examples of intransitive compounds based on two intransitive roots:

(37)	Intransitive Root (1)	Intransitive Root (2)	Compound
	em 'to descend, come down'	çih 'to be born'	em=çihil 'to abort, miscarry'
	ɔoc 'to end, be finished, be over'	luk 'to leave, withdraw, avoid, escape'	ɔoc=lukul 'to end, expire; be finished or perfect'

The cognate of ɔoc=lukul is ɣ'ok=luk'ul in Modern Yucatec, which is an adjectival, not intransitive compound, meaning 'adequate, sufficient, enough' (V. Bricker et al. 1998:53).

There is also one example of an intransitive compound that combines a transitive root, haay 'to destroy, level, flatten, raze,' with an intransitive root, cim 'to die, expire,' yielding haay=cimil 'to die out, be massacred.' Its use in context is illustrated below:

- (38) haay=cimi valakob
'all my livestock died' (Ciudad Real 1600?: fol. 203v)

The Hocaba dictionary of Modern Yucatec contains only two examples of intransitive compounds. One of them combines the intransitive root, b'in 'to go,' with the numeral root, káʔah 'two,' producing the compound stem, káʔah=b'in 'to go again.' The intransitive root in the other example is wen 'to sleep'; it is combined with the positional root, mul 'to pile up, gather,' in the compound, múul=wen 'to sleep together [in the same bed or hammock]' (V. Bricker et al. 1998:32). Another compound with an intransitive meaning combines the nominal root, han 'food,' with the same positional root: múul=han 'to eat together (from the same plate),' as in the following contextual example:

- (39) táan u múul=hanal y éetel u kiik
 'he is eating together with his older sister' (V. Bricker et al. 1998:96)

6. INTRANSITIVE PHRASES

A number of intransitive phrases consist of an intransitive verb followed by ol 'heart (non-corporeal), mind, will, desire, energy, spirit, condition, quality,' in every case inflected with a clitic pronoun. This is the case with phrases composed of the intransitive verb, lepp, and the noun, ol, which refer to becoming angry, indignant, furious, or aroused:

- (40a) baci a pay=chacte v leppel y ol padre tech
 'don't provide the priest with an opportunity for him to become angry with you!' (Ciudad Real 1600?: fol. 362r)
- (40b) leppi va y ol a kazali
 'did your genitals become aroused?' (Ciudad Real 1600?: fol. 266r)

The examples in (40a–b) contrast the imperfective and perfective inflection of lepp, which in both cases are followed by the noun, ol, with the clitic pronoun, y.

In the next pair of examples, the verb is formally intransitive (kahi), but the gist of the sentence is transitive:

- (41a) kahi vol ppolom in manci nok
 'I recognized the merchant from whom I bought the clothes' (Ciudad Real 1600?: fol. 233r)
- (41b) kahi ti vol ppolom in manci nok
 'I recognized the merchant from whom I bought the clothes' (Ciudad Real 1600?: fol. 233r)

The sentences in these examples differ only in the presence or absence of the preposition, ti, after kahi. In both cases, the noun that follows the verb is inflected for possession (as uol rather than simply ol).

The example of kahi vol in (41a) is of interest for historical linguistics because it resembles the defective transitive verb, k'ah=ʔool, 'to know /someone/', in Modern Yucatec. It is defective because it does not take the transitive aspectual stem suffixes (-ik, -ah, and -eh/-Ø) or head words. On the other hand, a fully inflected transitive verb can be derived from it by suffixing -t to k'ah=ʔool, whereupon its meaning changes from 'to know /someone/' to 'to recognize,' the same gloss that is attributed to the phrase kahal ol and

the transitive compound, kah=oltah in the Calepino de Motul (Ciudad Real 1600?: fol. 233r, 234v). See 3. in Chapter 7 for additional examples of defective transitive verbs.

The noun, ol, follows intransitive verbs in other phrases as well:

- (42a) tuubi au ol ten
'you did not recognize me [literally, you forgot me]' (Ciudad Real 1600?: fol. 427v)
- (42b) kaatpahi vol ti benel cumkal
'my mind changed about going to Conkal' (Ciudad Real 1600?: fol. 240v)

However, the noun, ol, does not occur in all intransitive phrases. The following examples involve other nouns, namely haa 'water,' be 'road,' and t̃han 'word':

- (43a) oci haa t u hool
'he was baptized [literally, water entered into his head]' (Ciudad Real 1600?: fol. 191r)
- (43b) mani t u beel v yum
'he followed in the footsteps of his father' (Ciudad Real 1600?: fol. 291v)
- (43c) kuchi v t̃han in vayak
'my dream came to pass' (Ciudad Real 1600?: fol. 253r)
- (43d) ti kuchon hokebal be
'we arrived where the road forked' (Ciudad Real 1600?: fol. 190v)

Intransitive phrases in Modern Yucatec have the same structure as in Colonial Yucatec, with an intransitive verb followed by a noun inflected for possession with a clitic pronoun. The Modern cognate of Colonial ol is ʔool 'heart, will, energy, spirit,' which serves as the noun in the next example:

- (44) k'učpah uy ʔol u p'aten
'he dared to leave me' (V. Bricker et al. 1998:158)

The intransitive phrase composed of the intransitive root, ʔ'óʔok 'to finish, end,' and the noun, b'èel 'road,' refers to marriage graphically as a road coming to an end:

- (45a) š p̃iileʔ sáamal u ʔ'óʔokol u b'èel
'Phyllis, she will marry tomorrow [literally, her road will end]' (V. Bricker et al. 1998:53)
- (45b) hóʔolhak ʔ'óʔok u b'èel
'he married yesterday' (V. Bricker et al. 1998:53)

The earliest documented use of this phrase for marriage is in Beltrán de Santa Rosa María's eighteenth-century grammar (1746:175).

7. SUMMARY OF CHANGES IN INTRANSITIVE VERBS THROUGH TIME

Only two changes have occurred in intransitive verbs since the sixteenth century. Four intransitive verbs of motion that marked their imperfective stem with *-el* in Colonial Yucatec have replaced it with no suffix (*-Ø*) in Modern Yucatec. The inchoative suffix, *-h*, that was most numerous in Colonial Yucatec rarely occurs in Modern Yucatec, having been replaced by the inchoative suffix, *-ch* (phonetic [č]), that had been much less common in Colonial Yucatec.

NOTES

1. According to the Colonial grammarians, San Buenaventura (1684: fol. 18v) and Beltrán de Santa Rosa María (1746:62–63), *-ac* served as the subjunctive suffix for such inchoatives (as it still does in Mopan [Hofling 2011:16]). If so, *çebac* in the following sentence may be an example of the subjunctive stem of *çebhal* ‘hurry, to make haste’ in the *Calepino de Motul*:

he uil ca bin çebac v tñanile bin in çebel halab tech

‘if the word comes promptly, I will tell you promptly’ (Ciudad Real 1600?: fol. 184r)

2. The phonetic realization of *ca=kalic* in Modern Yucatec is [káʔa=ʔáʔalik] (cf. V. Bricker et al. 1998:121). The use of “k” (phonetic [kʰ]) in *ca=kalic* may represent a merging of the medial glottal stop in [káʔa] with the initial glottal stop in [ʔáʔalik] in fast speech.

CHAPTER 7

TRANSITIVE VERBS

There are two kinds of transitive stems in Colonial and Modern Yucatec: root and derived. Aspectual suffixes are attached directly to the root in root transitive stems, but follow the derivational suffix in derived transitive stems (see **1.2.1.** and **1.2.2.** in Chapter 5).

1. VOICE

Root transitives can have as many as four voices: active, passive, antipassive, and middle. Derived transitives have only three voices, lacking the middle voice. Only the active voice can take a direct object. In that sense, the passive, antipassive, and middle voices are formally intransitive, but because voice is normally regarded as a property of transitive verbs, it will be considered at length in this chapter.

A transitive verb is passivized by deleting the subject and making the object the subject of an intransitive verb. The former nominal subject may be moved into an oblique phrase after the verb, or it may be deleted entirely from the clause.

As its name implies, the antipassive is the antithesis of the passive voice: in antipassivization, it is the object, rather than the subject, that is deleted from the verb. The former nominal object may be moved into an oblique phrase after the verb, but it is usually deleted entirely from the clause.

The passive stem always implies an agent, even when no agent is mentioned. The middle voice stem is used when there is no agent, as when the subject experiences a change without apparent cause.

1.1. VOICE IN ROOT TRANSITIVES. Of the four voices associated with root transitives, the active voice has remained essentially unchanged through time, and the passive voice has undergone significant structural changes.

1.1.1. THE ACTIVE VOICE OF ROOT TRANSITIVES. The active stems of most root transitives in Colonial Yucatec had a CVC structure, in which the vowel was short. The -ic (imperfective), -ah (perfective), and -Vb (subjunctive) suffixes immediately followed the CVC stems (V echoes the vowel in the root):

(1a) lay v chun licil in ha^jicech a pucul loe
'that is the reason why I whip you: you run away' (Ciudad Real 1600?: fol. 267r)

(1b) v keya^hen batab
'the leader scolded me' (Ciudad Real 1600?: fol. 244r)

- (1c) he cuch=teelbil cahe v nah v tzicib v chun u tñan
 ‘as for the subject town here, it should obey its chief’ (Ciudad Real 1600?: fol. 87r)

The active stems of all root transitives have a CVC structure in Modern Yucatec, and, as in Colonial Yucatec, the aspectual suffixes (-ik [imperfective], -ah [perfective], and -eh/-Ø, but not -Vb’, [subjunctive]) are attached to this base:

- (2a) k u huč’ik tī? ka?
 ‘she ground it on a grinding stone’ (EBT979A)
- (2b) mīin miš hum p’éel k’ohá?anil t u č’áah tī?ob’ yah
 ‘I don’t think a single illness gave them pain’ (EBT979B)
- (2c) k’ab’éeh túun b’ey máaš y òoh(e)l u č’akeh
 ‘someone is needed then, who knows how to cure like this’ (EBT979B)

1.1.2. THE PASSIVE VOICE OF ROOT TRANSITIVES. During the second half of the sixteenth century, the passive stems of root transitives were changing from their relatively simple and consistent structure shared by all passives inherited from Proto-Yucatecan to the more complex and heterogeneous structure that is evident in Modern Yucatec today. A late phase of this transition was captured by the *Calepino de Motul*, which contains examples of both the inherited and the innovated patterns. The *Calepino* lists as entries only the imperfective stems of these passives; the shapes of the other aspectual stems of the innovated passives can be inferred from example sentences in the *Calepino*, but not for the inherited passives, which are few in number and poorly represented by example sentences. The inherited passive was marked by the suffixation of -b (phonetic [b’]) to the CVC root and then -VI for the imperfective aspect (V echoes the vowel in the root).

Eight root transitives in the *Calepino de Motul* have both the inherited (CVC-b-VI) and innovated (CVVC-VI) imperfective forms of the passive stem, indicating that the transition was still underway during the late sixteenth century (Table 7-1). For example, *tokbol* (phonetic [tok’-b’-ol]; inherited) and *tookol* (phonetic [to?ok’-ol]; innovated) both mean ‘be punctured.’ The presence of -b (phonetic [-b’]) in the inherited form and its absence from the innovated form imply that it was reduced to a glottal stop before metathesizing with the coda consonant (see **2.2.2.2.1.** in Chapter 3). And the fact that both forms of the stem are listed in the *Calepino* means that they were in free variation at that time.

The passive of one root transitive seems to have been more conservative. For *luk* ‘swallow’ (phonetic [luk’]), the *Calepino* lists only *lukbul* ‘be swallowed’ (phonetic [luk’-b’-ul]) as the passive stem. Another passive—*kubul* ‘be delivered, transferred, offered’—is ambiguous; because the coda consonant of the transitive root (*kub*; phonetic [k’ub’]) is [b’] and the passive suffix is also [b’], the coda consonant must be reduced to a glottal stop, for which there is no symbol in the *Calepino*. Therefore, *kubul* could have represented either phonetic [k’ub’-b’-ul] or [k’u?ub’-ul], contrasting with the transitive root *xab* ‘transplant, scatter, spread,’ where there is no ambiguity because the inherited passive example contains two “b’s” (*xabbal*).

A few more root transitives in the *Calepino* have retained the inherited passive because the root-final consonant is a laryngeal: [ʔ] or [h] (Table 7-2). Either because laryngeals are weak consonants or because the transitive roots in question already had a laryngeal consonant, the passivizing suffix was never reduced to a glottal stop. In the case of CVʔ roots, it was incorporated into the root as the coda consonant, resulting in CVVb-VI. For example, the *Calepino* lists *choobol* ‘be cleaned, erased, flayed,’ specifying that it has an

Table 7-1. Comparison of inherited and innovated passives derived from transitive roots in the Calepino de Motul (Ciudad Real 1600?).

Transitive Root	Phonetic Spelling	Gloss	Inherited Passive	Phonetic Spelling	Innovated Passive	Phonetic Spelling	Gloss
ɔac	ǵ'ak	cure, heal	ɔac-b-al	ǵ'ak-b'-al	ɔaac-al	ǵ'aʔak-al	be cured, healed
pat	pat	form, shape	pat-b-al	pat-b'-al	paat-al*	paʔat-al	be formed, shaped
pay	páay	borrow, lend	pay-b-al	páay-b'-al	paay-al*	paʔay-al	be borrowed, lent
piɔ	piǵ'	gin cotton	piɔ-b-il	piǵ'-b'-il	pijɔ-il	piʔiǵ'-il	be ginned (cotton)
ppec	p'ek	hate	ppec-b-el	p'ek-b'-el	ppeec-el	p'eʔek-el	be hated
toc	tok	snatch away, defend	toc-b-ol	tok-b'-ol	tooc-ol	toʔok-ol	be snatched away, defended
tok	tok'	puncture, let blood	tok-b-ol	tok'-b'-ol	took-ol*	toʔok'-ol	be punctured
xab	šab'	transplant, scatter, spread	xab-b-al	šab'-b'-al	xaab-al	šaʔab'-al	be transplanted, spread

*"Accent on first syllable"

accent on the first syllable, as the passive of choo 'clean something wet, polish, flay.' In Modern Yucatec, the reflex of the root of this verb is čóʔ, and its passive derivation is chóʔob'-ol (not č'óʔoʔ-ol, as it would be if it had undergone the same changes as other passives derived from root transitives in Modern Yucatec). The presence of a glottal stop in čóʔ and the other glottal-stop-final transitive roots in Table 7-2 blocked the reduction of [b'] to [ʔ] in this group of root transitives. An example of the use of choobol appears below:

- (3a) licil v choobol ti keban olal
 'with which the (bad) conscience is cleansed' (Ciudad Real 1600?: fol. 243r)

The Calepino treats čhaabal 'be collected, recovered' (< čha 'collect, recover'; phonetic [č'aʔ]) in the same way, doubling the vowel in the main entry, as well as in two illustrative examples:

- (3b) nacalbil v čhaabal v uich coco
 'climbing for coconuts to be collected' (Ciudad Real 1600?: fol. 316r)
- (3c) ma tech c u čhaabal a tʰan
 'your advice is never taken' (Ciudad Real 1600?: fol. 150v)

Here again, the final glottal stop in the root has become part of the vowel nucleus.

Table 7-2. Passives of laryngeal-final transitive roots in the Calepino de Motul (Ciudad Real 1600?).

Transitive Root	Phonetic Spelling	Gloss	Passive	Phonetic Spelling	Gloss
coo	koʔ	strip bark	coobol	koʔob'ol	be stripped (bark from trees)
chij	čiʔ	eat meat	chibil	čiʔib'il	be eaten (meat, eggs, fish)
choo	čoʔ	scrub, rub, wipe	choobol	čoʔob'ol	be scrubbed, rubbed, wiped
c̃ha	č'aʔ	collect, recover	c̃haabal	č'aʔab'al	be collected, recovered
haa	haʔ	scrape, grind, file, brush, polish, smooth	haabal	haʔab'al	be scraped, ground, filed, brushed, polished, smoothed
he	heʔ	open	heebel	heʔeb'el	be opened
paa	paʔ	break, unbind, demolish	paabal	paʔab'al	be broken, unbound, demolished
ppa	p'aʔ	open	ppabal	p'aʔab'al	be opened
ppoo	p'oʔ	wash, launder	ppoobol	p'oʔob'ol	be washed, laundered
too	toʔ	wrap	toobol	toʔob'ol	be wrapped
tza	ʧah	sue	tzaabal	ʧaʔab'al	be sued
tze(e)	ʧeh	grind coarse	tzeebel	ʧeʔeb'el	be ground coarse
ɔa	ʧ'ah	give, concede, authorize	ɔaabal	ʧ'aʔab'al	be given, conceded, authorized
xe	šeh	vomit	xeebel	šeʔeb'el	be vomited

The passives derived from /h/-final root transitives have a similar history. Here, too, the presence of a laryngeal in the transitive root blocked the reduction of [b'] to [ʔ], but laryngeal /h/ was replaced by a glottal stop in the stem. For example, the phonetic spelling of the root transitive entry ɔa 'give, concede, authorize, place, put, expose' in the Calepino is [ʧ'ah]. The passive form of this verb is listed only as ɔabal, but one of the example sentences in the Calepino contains the following phrase:

- (3d) macech t u ɔaabal v yatzil ah num=ya
 'or by alms being given to the poor' (Ciudad Real 1600?: fol. 282r)

In this case, the verb stem is spelled as ɔaabal (phonetic [ʧ'aʔab'-al]), instead of ɔabal (phonetic [ʧ'ah-b'-al]). The fact that the vowel in the passive form of this verb is doubled indicates that it contains a glottal stop. It contrasts with the ɔabal spelling of the passive that serves as an entry in the Calepino and the other example sentences containing it. The co-existence of the two forms in the Calepino suggests that [ʧ'ah-b'-al] was still in free variation with [ʧ'aʔab'-al] while the Calepino was being compiled.

Only the ʧ'aʔab'-al form of this passive can be found in Modern Yucatec today:

- (4a) héʔ u ʧ'aʔab'al b'in ten tàak'ineʔ
 'they say that I will be given money' (Blair and Vermont-Salas 1993:1041)

Other examples of passives based on h-final root transitives in Modern Yucatec include:

- (4b) le máaš má? ʔuʔ t u t'àan u ʔaʔab'ale? má? u pàaš
'whoever doesn't like to be dunned doesn't go into debt' (V. Bricker et al. 1998:40)
- (4c) ʔ'óʔok u šéʔeb'e in nòok' t u mèn le pèek'oʔ
'my dress was vomited on by that dog' (V. Bricker et al. 1998:256)

The transitive roots in question are ʔah 'to collect, recover, dun' and šeh 'to vomit.'

The imperfective passives based on ʔ-final transitive roots have the same CVʔVb'-VI structure in Modern Yucatec:

- (5a) yan u tóʔob'ol teč le b'áʔalaʔ hoseh wá keš máʔ
'must this thing be wrapped for you, José, or not?' (Blair and Vermont-Salas 1993:1043)
- (5b) le in nòok'aʔ yan u p'óʔob'ol
'these clothes of mine have to be washed' (Blair and Vermont-Salas 1993:1043)
- (5c) k u čaʔab'al šan im p'atik in meyah
'I will also be permitted to leave my work' (Blair and Vermont-Salas 1993:1041)

The transitive roots in question are toʔ 'to wrap,' p'oʔ 'to wash clothes, launder,' and čaʔ 'to free, loosen, untie, release, allow, let.'

The Calepino contains only ten root transitives whose passive stems have the structure inherited from Proto-Yucatecan, and eight of them have an alternative passive stem that has the same structure as the passives based on root transitives in Modern Yucatec. The presence of a laryngeal-final consonant in fourteen root transitives blocked the conversion of the passivizing suffix into a glottal stop, but not the introduction of a glottal stop into the vowel nucleus.

The presence of a medial laryngeal, either a glottal stop or /h/, prevented a small group of semantically transitive roots from adopting the innovated passive as well. Because the development of passives in this group of root transitives paralleled that of passives in derived transitives, they are compared with the passives they resemble in 1.2.3. below.

In addition, the passives of 125 root transitives had completed the transition to the Modern form, without leaving traces of the inherited passive, when the Calepino was compiled. They are listed as main entries with the -VI imperfective suffix, which are sometimes illustrated in context:

- (6a) hun=mucub ich v ʔaatal t u vich
'in an instant their sight is lost' (Ciudad Real 1600?: fol. 199v)
- (6b) a nah tzijcil a nah kuultabal a nah yacunabal y etel tanlabal
'you deserve to be honored, you deserve to be adored and to be served,

cech yumile cech Diose
you who are Lord, you who are God!' (Ciudad Real 1600?: fol. 319r)
- (6c) ma hun=çut v caanal babal
'the thing cannot be learned in one moment!' (Ciudad Real 1600?: fol. 197v)

- (6d) v taacal che y alan cum
 'the sticks are positioned beneath the pot' (Ciudad Real 1600?: fol. 398v)

They also appear in example sentences with the perfective -i suffix:

- (6e) mooci kaan t in menel
 'the hammock was knotted by me' (Ciudad Real 1600?: fol. 306v)
- (6f) maaci v chij batab ti ho ppeel tostones
 'the mouth of the leader was closed with five silver coins [i.e., he was bribed to keep silent]' (Ciudad Real 1600?: fol. 281r)
- (6g) paayi v beel t u men u çucun
 'he was guided by his older brother' (Ciudad Real 1600?: fol. 360v)
- (6h) çaati t u men v netzil
 'he got lost because of his stupidity' (Ciudad Real 1600?: fol. 325v)
- (6i) ol haaæn t u men padre
 'I was about to be whipped by the priest' (Ciudad Real 1600?: fol. 349v)
- (6j) olen haaçi t u men padre
 'I was about to be whipped by the priest' (Ciudad Real 1600?: fol. 349v)

In addition, the Calepino contains a few examples of such passives with the subjunctive suffixes, -Vc and -ebal (the latter in an adverbial focus construction):

- (6k) nuucuc to hun ppeel haab ca conffesarnacech t u ca=ten
 'when one year has been completed, you will confess again' (Ciudad Real 1600?: fol. 335r)
- (6l) bin kuubuc v baal in ba t in çuplil y etel t in paalilob manbal kin tiob
 'my possessions will be given to my wife and children so that they can survive,
 maix ti hun=pay
 and to no one else' (Ciudad Real 1600?: fol. 296r)
- (6m) xoococ hun-hun=tzuc ti cuch=teelil
 'each piece of land may be counted one by one' (Ciudad Real 1600?: fol. 87v)
- (6n) ma kahan bin çatebal
 'it will be lost without warning' (Ciudad Real 1600?: fol. 289v)

The structure of the imperfective (CVVC-VI), perfective (CVVC-ih/-Ø), and subjunctive (CVVC-Vc) stems in Colonial Yucatec shown in (6a-m) is identical to the structure of their counterparts in Modern Yucatec:

- (7a) ø'ó?ok u sî?ip'il a sî?ipil
 'your mistakes have already been increased' (V. Bricker et al. 1998:247)

- (7b) le š č'úpalo? ǵ'ók u k'á?ášal uy òok t u mèn h wàan
'that girl is engaged to John [literally, that girl, her foot is tied up by John]' (V. Bricker et al. 1998:148)
- (7c) tak č'é?ene? k u sá?ap'al
'even wells dry up' (V. Bricker et al. 1998:242)
- (7d) wáah táan u t'ó?ošol hàanle? má? aw áalkab'
'if food is being distributed, don't run!' (V. Bricker et al. 1998:293)
- (7e) in k'ú?ume? sí?ip'ih
'as for my hominy, it was swollen' (V. Bricker et al. 1998:247)
- (7f) k'á?al u šàanab' t u káap hum p'éel tùunič
'his shoe was stuck in the cleft of a rock' (V. Bricker et al. 1998:143)
- (7g) h wàane? č'ú?uk t u y òokol
'John, he was caught in the act of robbing' (V. Bricker et al. 1998:74)
- (7h) t yà?an le dóon háasintoh pàato?
'that Don Jacinto Pat was there,
- t yà?an túun dóon séesilyoh či?o?
that Don Cecilio Chi was there then,
- ká?ah má?ač u kàahil tíhosùukóe?
'when the town of Tihosuco was taken' (V. Bricker 1981a:249, lines 1083–1085)
- (7i) ká?ah ʔú?uk'uk sa? t u mèn h wàan
'gruel may be drunk by John'
- (7j) ká?ah pá?ak'ak kòol t u mèn tèn
'the field might be planted by me'
- (7k) ká?ah há?aʔ(a)keč t u mèn tèn
'you might be hit by me'
- (7l) ká?ah kó?olok t u mèn h wàan
'it might be cleared off by John'¹

Thus, by the late sixteenth century, the Modern pattern for passive stems derived from root transitives had almost completely replaced the pattern inherited from Proto-Yucatecan, and this is the only pattern that characterizes such passives in Modern Yucatec and Lacandon. These languages contrast with Itsaj and Mopan, which have retained the inherited pattern intact. Because the shift from Proto-Yucatecan to the Modern pattern of passivization was so advanced during the second half of the sixteenth century, it must have begun much earlier, perhaps before the arrival of the Spaniards in 1511. Itsaj and Mopan must have already separated from what became Colonial Yucatec and therefore did not participate in the changes that led to the innovated passive of Modern Yucatec and Lacandon.

1.1.3. THE ANTIPASSIVE VOICE OF ROOT TRANSITIVES. Folio 464 verso of the Calepino de Motul contains a minimal pair that contrasts the imperfective antipassive stem of the root transitive, *poch* ‘to insult, dishonor, reprove, condemn,’ with its active counterpart:

- (8a) *xulic v poch_{ic} batab Juan*
 ‘John insulted the leader to the limit’
- (8b) *xulic v poch_ Juan ti batab*
 ‘John insulted the leader to the limit’ [literally, to the limit, John insulted to the leader]

In the active example (8a), *batab* ‘leader’ is the direct object of *v poch_{ic}* ‘he insulted him,’ whereas there is no direct object in the second example (8b), *v poch* ‘he insulted,’ and the nominal direct object has been moved into an oblique phrase after the preposition *ti*. The example in (8b) implies that the imperfective antipassive is marked by $-\emptyset$ (no suffix), contrasting with the imperfective active in (8a) that is marked by *-ic*. Although the two examples can be glossed in the same way, the active transitive verb implies a direct object, whereas the antipassive verb has a more general meaning.

The examples of antipassive based on the transitive root, *tuz* ‘lie, deceive,’ in (9a–c) below show that the perfective and subjunctive stems of such verbs were marked by *-n*, instead of $-\emptyset$, in Colonial Yucatec:

- (9a) *lic bin a hacic a palil t u men v tuz_*
 ‘they say that you customarily whip your son because he lies’ (Ciudad Real 1600?: fol. 267r)
- (9b) *tuz_{ni}*
 ‘he lied’ (Ciudad Real 1600?: fol. 428r)
- (9c) *bin tuz_{nac}*
 ‘he will lie’ (Ciudad Real 1600?: fol. 428r)

Other examples of the perfective antipassive of root transitives in *-n* in the Calepino include:

- (10a) *hoch_{nech} ua ti domingo*
 ‘did you harvest on Sunday?’ (Ciudad Real 1600?: fol. 188r)
- (10b) *xen_{en} t u men in ban-ban=hanal*
 ‘I vomited because I ate too much’ (Ciudad Real 1600?: fol. 456r)
- (10c) *c_heh_{nech} xin t a cuch=teel*
 ‘did you distribute widely in your province?’ (Ciudad Real 1600?: fol. 154r)
- (10d) *macx ti ciz_{ni} teex*
 ‘who among you-all farted?’ (Ciudad Real 1600?: fol. 71v)

For Modern Yucatec, I can also offer a minimal pair that contrasts the imperfective antipassive stem of the root transitive *t’an* ‘speak, call, address,’ with its active counterpart:

- (11a) *máʔalob’ a t’an_{ik} màayah*
 ‘you speak Maya well’ (V. Bricker 1978:17)

- (11b) máʔalob' a t'àan_ ʔič màayah
 'you speak well in Maya' (Blair and Vermont Salas 1965:50)

Here, as in Colonial Yucatec, the imperfective antipassive is marked by -Ø (no suffix), and the nominal direct object has been moved into an oblique phrase after a preposition, in this case ʔič 'in, within.' But in the Modern example, the vowel in the antipassive stem is long, with a low or falling tone, whereas the vowel in the antipassive stem in (8b) is neither doubled nor accented. It is likely that the long vowel and low tone that today characterize almost all antipassives based on root transitives developed some time after the Calepino de Motul was compiled (see **2.3.2.3.** in Chapter 3). Other examples of the imperfective antipassive stem based on root transitives in Modern Yucatec are shown in (12a–c) below:

- (12a) le š č'úpaloʔ man=taʔ' t u hàāč'_
 'that girl is constantly chewing' (V. Bricker et al. 1998:93)
- (12b) b'áʔaš k u kùup_ t a puksíʔik'al
 'what have you kept to yourself?' [literally, what holds in your heart?] (V. Bricker et al. 1998:138)
- (12c) ʔ'óʔok in màāč'_
 'I have collected' (V. Bricker et al. 1998:176)

-n still marks the perfective and subjunctive antipassive stems, but it is now followed by -ah in the perfective stem:

- (13a) hòōčnāhen
 'I won [literally, I harvested]' (V. Bricker et al. 1998:107)
- (13b) pèehnāhen
 'I chipped' (V. Bricker et al. 1998:333)
- (13c) káʔah p'èehnāken
 'I may chip' (V. Bricker et al. 1998:333)

This can be seen most clearly by comparing (13a) with (10a), where the antipassive stems are based on the same transitive root: hochnech (Colonial) and hòōčnāhen (Modern).

There are a few exceptions to this description of the antipassive stems based on root transitives in Colonial and Modern Yucatec. For example, the antipassive stem of can 'to learn' in Colonial Yucatec was canbal or cambal, and it is kàamb'al in Modern Yucatec:

- (14) in kiikeʔ tíʔ k u kàamb'al hoʔeʔ
 'as for my older sister, she studies there in Merida' (V. Bricker et al. 1998:122)

The -b'al suffix looks suspiciously like the imperfective passive suffix in Proto-Yucatecan, which seems to have moved to the antipassive stem. The length and low tone of the stem vowel agrees with the shape of this stem in Modern Yucatec. The perfective and subjunctive stems of this antipassive are kàamb'alnah and kàamb'alnak, respectively, in Modern Yucatec. The presence of -b'al in these stems is unusual.

The -bal suffix also appears in the three antipassive stems of the glottal-stop-final root transitive, chij 'to eat meat,' as chibal 'to eat eggs, fish, chili, sauce, bite; hurt, ache' in Colonial Yucatec:

- (15a) muuxi ualak t u chibal c̣hamac
'my chickens are gone, eaten by a fox [literally, my chickens are gone, a fox is eating]' (Ciudad Real 1600?: fol. 314v)
- (15b) hunac pecni hunac chibalnici
'it moved often; it bit often' (Bacabs, 1779?:175)
- (15c) manan c̣hamac bin chibalnaci
'there is no fox that will bite' (Tizimin n.d.: fol. 8v)

The imperfective counterpart of this stem in Modern Yucatec is:

- (15d) táan u čʔibal in nak'
'my stomach hurts' (V. Bricker et al. 1998:68)

I lack information on the perfective and subjunctive stems of this antipassive.

Not all antipassives based on glottal-stop-final root transitives are marked by -bal. In Modern Yucatec, for example, the transitive roots, p'oʔ 'to wash clothes, launder' and haʔ 'to sharpen' have antipassive stems marked by -Ø (no suffix), but retain the short vowel of the transitive root:

- (16a) le š č'úupaloʔ táan u p'oʔ
'that girl is menstruating' (V. Bricker et al. 1998:231)
- (16b) háʔanahih²
'it sharpened' (V. Bricker et al. 1998:91)

Finally, the antipassive stems of three root transitives are marked by a -Vl suffix (V echoes the stem vowel). The Calepino de Motul illustrates the use of cónoł 'to sell' and ukul 'to drink' in the following sentences:

- (17a) kanan in conol vaye
'I must sell out here [referring to the estate I love very much]' (Ciudad Real 1600?: fol. 238r)
- (17b) c̣hehb'il av ukulex c i(n)u ilic
'I see you-all drinking freely' (Ciudad Real 1600?: fol. 154r)
- (17c) matbil y ukul
'he drinks gratis' (Ciudad Real 1600?: fol. 300v)

There are also examples of the imperfective antipassive stems of these root transitives in Modern Yucatec:

- (18a) le máak k u kòonoloʔ
'that man who sells' (Blair and Vermont Salas 1965:437)
- (18b) kóʔoš ʔuk'ul
'let's drink!' (Blair and Vermont Salas 1965:103)

Note that the stem vowel in kòonol is long with low or falling pitch, whereas the stem vowel in ʔuk'ul is short. These stems contrast with their passive counterparts, kóʔonol and ʔúʔuk'ul, whose stem vowels have an infixed glottal stop. The third antipassive stem in this group is pak'al 'to plant, sow.' Like ʔuk'ul, both vowels in this stem are short:

- (19a) táan k pak'al
'we're planting' (Blair and Vermont Salas 1965:103)
- (19b) pak'alnahun hóʔolheh
'I planted yesterday' (Blair and Vermont Salas 1965:103)

It is noteworthy that the -VI suffixes in these examples only mark them as antipassives, not as imperfectives, in contrast to the -VI suffixes in the passives described in 1.1.2. above and the middle voice stems that will be discussed in 1.1.4. below. They are retained in the perfective and subjunctive stems of these antipassives, but appear only in the imperfective stems of passives and mediopassives, where their function is entirely aspectual, not stem-formative.

1.1.4. THE MIDDLE VOICE OF ROOT TRANSITIVES. The orthography used in the Calepino de Motul makes it difficult to distinguish the middle voice (also known as the mediopassive) from the passive voice in terms of spelling alone. It is not clear whether the middle voice stem still had the CVhC shape of the Proto-Yucatecan stem of this voice during the second half of the sixteenth century, or if the laryngeal /h/ had already disappeared, resulting in the lengthening of the vowel and high or rising pitch that characterizes the middle voice in Modern Yucatec. Only root- or stem-initial /h/ was recorded as such in the Calepino, and vowel length was not marked, but because the nuclei of both kinds of stems are heavy, their vowels were sometimes doubled or accented. The same was true of the many innovated passives in Colonial Yucatec, whose CVʔVC stems were heavy because of their infixed glottal stops.

Middle-voice stems can often be distinguished from passive stems semantically, in the sense that they refer to actions that take place without apparent cause, whereas passives imply an agent, whether or not the agent is actually mentioned. For example, chóoxol 'to fall like a beast of burden or when a person falls after stumbling' is based on the root transitive chox 'to knock down, throw down.' It is a mediopassive because the falling has no apparent cause. The vowel in the first syllable of chóoxol is both doubled and accented, a spelling that is consistent with both the Proto-Yucatecan (chóhxol) and Modern Yucatecan (č'óošol) forms of this stem.

A similar argument can be made for interpreting hual 'to stop, cease, conclude, close' as a mediopassive. Following the gloss of this entry is a statement that there is an accent on the first syllable. The example sentences for this entry do not imply an agent:

- (20a) ma=bal ma tan v hual
'nothing lasts forever' (Ciudad Real 1600?: fol. 280r)
- (20b) hah-i-hah v hual in cimil ca ix lecec xan hah-i-hah
'my illness stopped suddenly, and it returned suddenly too' (Ciudad Real 1600?: fol. 172v)
- (20c) hui in num=ya y etel in chapahal
'my suffering and illness ceased' (Ciudad Real 1600?: fol. 178v)

- (20d) hau v uahil ca ix oci t u hahal cucutil c ah lohil
 'it ceased to be bread and became the actual body of Our Savior' (Ciudad Real 1600?: fol. 178v)

A sentence containing the imperfective stem of this verb in Modern Yucatec documents the presence of a long vowel and high tone in the first syllable of háawal:

- (20e) ǵ'óʔok u háawal u čǵib'al in koh
 'my toothache already stopped' (V. Bricker et al. 1998:199)

The sentences in (21a–b) illustrate the imperfective and perfective stems of ǵ'úum 'to deflate, shrink, dwindle':

- (21a) ǵ'óʔok u ǵ'úumul u čùupil uy ič in sukúʔun
 'the swelling on my older brother's face already went down' (V. Bricker et al. 1998:56)
- (21b) ǵ'úum in k'úʔum
 'my corn meal dwindled to nothing' (V. Bricker et al. 1998:56)

There are, in fact, ca. 360 middle voice stems in the Hocaba dialect of Modern Yucatec ((Bricker et al. 1998), representing 87 percent of the root transitives (N = 412). They are much less common in the Calepino de Motul, perhaps reflecting the absence of such a formal category of verb stems in Latin and Spanish.

1.2. VOICE IN DERIVED TRANSITIVES. Transitive stems may be derived from roots in other form classes by suffixing -(e)s, -t, and -cin/-cun to them. -(e)s derives causative stems from intransitive roots. -t derives transitive stems from nominal roots. And -cin/-cun (-kíin-s/-t or -kúun-s/-t in Modern Yucatec) derive transitive stems from other form classes, such as adjectives, particles, positionals, and affects.

Also considered here are the root transitives with medial laryngeals, whose passives have followed the same course of development from the pattern they inherited from Proto-Yucatecan as the -s and -t derived transitives. They are formally, if not semantically and historically, derived transitives in Modern Yucatec.

1.2.1. VOICE IN CAUSATIVE STEMS DERIVED FROM ROOT INTRANSITIVES. Causative stems have three voices: active, passive, and antipassive.

1.2.1.1. THE ACTIVE VOICE IN CAUSATIVES DERIVED FROM ROOT INTRANSITIVES. The aspectual suffixes that co-occur with causatives derived from root intransitives are -ic (imperfective), -ah (perfective), and -Ø (subjunctive), as shown in these examples of cim-s 'to kill,' which is derived from the intransitive root cim 'to die':

- (22a) heix ma haalil cie yanix v cimçic vinic
 'pure wine without liquid will cause a man to die' (Ciudad Real 1600?: fol. 215v)
- (22b) tepal chichob t in cimçah
 'I killed many birds' (Ciudad Real 1600?: fol. 417r)
- (22c) valah in cimez_ Juan
 'I said that I killed John' (Ciudad Real 1600?: fol. 204r)

The example of *in cimez* in (22c) indicates that the subjunctive stems of causatives take the *-es* allomorph of the causative suffix and that the subjunctive suffix is *-Ø*, not *-Vb*, as in root transitives.

In Modern Yucatec, *kíim* is the cognate of Colonial *cim* and *kíin-s* of Colonial *cim-s* (the nasal having assimilated to the causative suffix):

- (23a) *le ?úúčo? wáah k a kíinsik hun túul máake? kíinsb'ileč*
 'formerly, if you killed someone, you would be killed (too)' (V. Bricker 1981a:222, lines 136–138)
- (23b) *t u láah kíinsah le máakóo?*
 'they murdered all those people' (EBT979C)
- (23c) *máaš atan b'íin u kíinseh*
 'whose wife will he kill?' (V. Bricker 1979b:129)

The example of *u kíinseh* in (23c) suggests that the *-es* allomorph of the causative suffix no longer co-occurs with causative subjunctive stems and that *-eh* must be suffixed to *-s* if nothing follows it.

1.2.1.2. THE PASSIVE VOICE IN CAUSATIVES DERIVED FROM ROOT INTRANSITIVES. Both Colonial and Modern Yucatec have inherited the Proto-Yucatecan pattern of passivizing causatives derived from root intransitives by suffixing *-b* (phonetic [-b']) to the causative stem. This pattern of suffixation usually produces a triconsonantal cluster composed of the coda consonant of the intransitive root, followed by *-s* and *-b*, requiring the insertion of an epenthetic vowel, probably schwa, but represented as /a/ in the Colonial orthography, between the two suffixes.³ The aspectual suffixes that co-occur with passivized causatives derived from intransitive roots were *-al* (imperfective), *-i* (perfective), and *-ac* (subjunctive) in Colonial Yucatec:

- (24a) *hun ppel v hoksabal tamuk v cibtabal t u menel ess^{no} lae*
 'each one is removed while it is being written by this notary' (MA629-049-050B)
- (24b) *ca ti hoksabí v takin cah abal ti t u tohol v poc=che cole*
 'then the money of the town was removed to be given to him as the price of the abandoned field' (TK610-018A-D)
- (24c) *hex Dios t u hunal loe yanili ti ma çihçabac babal*
 'and as for that God alone, he existed before anything had been created
- t u menel y oklal ma chunlizi ma hopplizi*
 because he had no origin nor beginning' (Ciudad Real 1600?: fol. 215v)

The causative stem in (24a–b) is *hok-s* 'to take out, remove, withdraw,' which is derived from *hok* 'to come out, emerge.' In the third example (24c), *çih-ç* 'to bear, give birth' is the causative stem, having been derived from *çih* 'to be born.'

Beginning in the second half of the nineteenth century, the passivizing suffix *-b* was reduced to a glottal stop in the imperfective and subjunctive stems, and because there was no symbol for this laryngeal in the orthography used for this language then, *-abal* and *-abac* became *-al* and *-ac*, respectively in nineteenth-century texts:

- (25a) t u men hach talan keban u cimsal cristiano
 'because it is a most grievous sin for a Christian to be killed

etas xolocbal u c[a]n u kaba in yume
 while kneeling (and) mentioning my Father's name;

ma uchac bin cinsacobi
 it is not possible that they will be killed' (V. Bricker 1981a:194, lines 245–248)

This change is evidenced in Modern Yucatec today in the imperfective (-á?al) and subjunctive (-á?ak) stems of causative passives,⁴ but not in their perfective stem (-á?ab'), which retained the -b' form of the passive, but emulated the other stems by lengthening the epenthetic vowel between the -s and -b' suffixes and inserting a glottal stop in it:

- (25b) entonses ká?ah túun t u súblev'àart u b'ahó?ob' le yá?aškab'a?o? túuno?
 'then when the people of Yaxcaba rebelled then,

?àan ká?ah ?éensá?ak t u mèn tak u káampanáil
 yes, even though the bell was lowered by them;

?éensá?ab'ih peroh má? b'isá?ab'i? ká?ah ná?aksá?ab'ih
 it was lowered, but it was not taken away, and it was raised' (SOT971B:2)

The intransitive root of ?éensá?ak and ?éensá?ab' is ?éem 'to descend.' The underlying form of b'isá?ab' is b'insá?ab', which is derived from b'in 'to go.' ná?ak 'to rise, climb' is the intransitive root from which ná?aksá?ab'ih is derived.

1.2.1.3. THE ANTIPASSIVE VOICE IN CAUSATIVES DERIVED FROM ROOT INTRANSITIVES. The antipassive voice of causatives derived from root intransitives is best known from elicitation in Modern Yucatec (e.g., V. Bricker 1978:5–6). It is marked by suffixing -ah to the causative stem. The imperfective stem takes no additional suffixes, and in this respect, it resembles the active perfective stem, whose direct object is in the third person and singular:

- (26a) t inw oksah_ b'ú?ul
 'I planted beans'

- (26b) t inw oksah_
 'I planted it'

- (26c) t inw oksah
 'I am planting'

The active example in (26a) can be distinguished from the antipassive example in (26c) by the presence of a nominal direct object (b'ú?ul). The active example in (26b) has an implied direct object, but because the singular form of that pronoun is -Ø, it is formally identical to the antipassive example in (26c).

There is no such ambiguity between the active and antipassive perfective and subjunctive stems derived from causatives in Modern Yucatec:

- (27a) t inw oksah_
'I planted it'
- (27b) ?oksahnnahen
'I planted'
- (27c) b'iin inw okseh
'I will plant it'
- (27d) b'iin ?oksahnnacen
'I will plant'

Note that the vowel in the -nah and -nac suffixes in (27b) and (27d) echoes the preceding vowel (a), not the vowel in the root (o).

I have found only one antipassive example derived from a causative stem in Colonial Yucatec:

- (28) ua tian ti lakin ca bin ocsahnnaceche
'if it is in the east, then you will plant' (Tizimin n.d.: fol. 21r)

It has the same structure as the example in (27d), suggesting continuity in the formation of such antipassives from Colonial to Modern Yucatec.

1.2.1.4. VOICE IN OTHER CAUSATIVE STEMS. Two other kinds of causative stems are listed as entries in the *Calepino de Motul*, one derived from a celeritive intransitive stem and others derived from nominal, transitive, and adjectival roots.

1.2.1.4.1. VOICE IN CAUSATIVES DERIVED FROM CELERITIVE STEMS. The *Calepino de Motul* lists causative stems derived from only one celeritive stem (*mankahal* 'to pass quickly or suddenly'): *mankaheçah* and *mankeçah*, both glossed as 'to pass quickly; to say or advise quickly.' Only the active voice of these stems is illustrated in context in the *Calepino* with imperfective aspect:

- (29a) mankahezex ten
'tell me quickly how you-all are!' (Ciudad Real 1600?: fol. 298r)

- (29b) mankez t u xicin batab
'advise the leader quickly

v pakin v ximbal in paalilob lae
so that these servants of mine will benefit from their journey

hik çaçap hulucob
so that they do not return empty-handed!' (Ciudad Real 1600?: fol. 365r)

The *Hocaba* dictionary of Modern Yucatec lists four causatives derived from celeritives: *halk'es* 'to let slip, fall' (< *halk'ah* 'to slip, roll'), *kipk'es* 'to drop' (< *kipk'ah* 'to slip suddenly'), *poç'k'ah* 'to push over edge' (< *poç'k'ah* 'to slip suddenly'), and *tihk'es* 'to cause to slip' (< *tihk'ah* 'to unravel suddenly'). The active and passive voices of such causatives are illustrated in context below:

(30a) šèen a halk'es le sùumo? táan u tàal čáak
 'go lower that rope [in the well]! rain is coming' (V. Bricker et al. 1998:95)

(30b) kipk'esá?ab' t u k'áan=če?
 'he was dismissed from office' (V. Bricker et al. 1998:129)

1.2.1.4.2. VOICE IN CAUSATIVES MARKED BY -BES. Although causatives marked by -bes are more numerous than causatives marked by -kes in the Calepino de Motul, only one -bes causative has both active and passive stems, and none has an antipassive stem. The one in question is cambes 'to teach,' which is ultimately derived from the transitive root, can 'to learn.' The imperfective, perfective, and subjunctive stems of the active voice of cambes are illustrated in context below:

(31a) mai tac v cambeçicon
 'he never teaches us [nor did he ever teach us]!' (Ciudad Real 1600?: fol. 397v)

(31b) maina v cambeçah v mehen Juan ena v mehen
 'John did not yet teach his son, who was being his son,

bicx bin v cambeçic v mehen Pedro
 how will he teach Peter's son?' (Ciudad Real 1600?: fol. 288v)

The passive examples in (32a–b) represent the imperfective and subjunctive stems of this causative:

(32a) puçceni ma than lic in cambeçabal
 'I fled so that I would not be taught' (Ciudad Real 1600?: fol. 299v)

(32b) bin cambeçabacob paalalob t u çuput y akil voohe
 'the boys will be taught to pronounce the letters' (Ciudad Real 1600?: fol. 113r)

The active voice of causative verbs derived from other roots is represented below:

(33a) t u helbeçah v uich batab
 'the leader changed his appearance' (Ciudad Real 1600?: fol. 182v)

(33b) ma a kochbesic a pixan t u men v babalil cucut
 'don't encumber your soul with corporeal things!' (Ciudad Real 1600?: fol. 249v)

bin a tacbezex Juan t a pachex
 'you-all will intrude on John' (Ciudad Real 1600?: fol. 399v)

The apparent cognate of Colonial cambes is ká?an-s in Modern Yucatec. The infixed glottal stop is a vestige of the Colonial passive suffix -b', after it was reduced to a glottal stop and entered the root (see 1.2.3. below). The suffix -s is a remnant of the causative suffix -eç, which converted can-b 'to be learned' into cam-b-eç 'to teach.'

Only active causatives marked by -b'es occur in example sentences in the Hocaba dictionary of Modern Yucatec:

(34a) helb'es a çikb'al
'change your conversation!' (V. Bricker et al. 1998:102)

(34b) ç'ó?okb'es a t'àan
'keep your word!' (V. Bricker et al. 1998:53)

(34c) dyòos b'ó?otik tì? hahal dyòose?
'thanks to God

b'ehlá?e? yàan tú?uś im b'ó?oyb'esik im b'ah
I now have somewhere to lay my head [literally, to shade myself] (V. Bricker et al. 1998:36)

(34d) kó?oten a b'ó?oyb'es a b'ah
'come shade yourself!' (V. Bricker et al. 1998:36)

(34e) t u nupb'es u b'a?ob'
'they married' (V. Bricker et al. 1998:202)

1.2.2. VOICE IN TRANSITIVES DERIVED FROM NOMINAL ROOTS AND STEMS. The transitivizing suffix -t appears in the active and passive voices of transitives derived from nominal roots and stems, but not in the antipassive voice that is associated with such stems.

1.2.2.1. THE ACTIVE VOICE IN TRANSITIVES DERIVED FROM NOUNS. The active voice of transitives derived from nouns is marked by -ic (imperfective), -ah (perfective), and -e (subjunctive) suffixes that follow the derivational suffix -t in Colonial Yucatec, as shown in the following examples based on the noun tzeec 'sermon':

(35a) laobi hahal ohelmail ca tñan licil v tzeetçiconob
'it was these who already knew our language with which they preached to us,

y etel v cambeçiconob cuchi
and they taught us then' (KC567-032A-D)

(35b) ca v tzeetahob ... y almah=tñanil Dios toon
'and they preached the commandments of God to us' (KC567-19A-B)

(35c) lay in men in tzeecte vinicob cuchi ca çhapahen
'it was because I was occupied in preaching to men then that I became ill' (Ciudad Real 1600?: fol. 305r)

Cognates of the same aspectual suffixes have the same function in Modern Yucatec, as shown in the following examples based on the derived stems, b'ó?ol-t 'to pay' (from b'ó?ol 'payment'), tohol-t 'to cost' (from tohol 'price, value'), ?óol-t 'to accept, be willing, desire, want' (from ?óol 'heart, will, energy, spirit'), and hàan-t 'to eat' (from han 'food, meal'):

- (36a) dyóos b'ó?o(l)tik
'thank you [literally, it is God who pays it]' (V. Bricker et al. 1998:35)
- (36b) b'ahuš u toh^hol^htah
'how much did it cost?' (V. Bricker et al. 1998:279)
- (36c) t inw óo(l)ta^hh in hà^hante^h
'I wanted to eat it' (V. Bricker et al. 1998:17)

1.2.2.2. THE PASSIVE VOICE IN TRANSITIVES DERIVED FROM NOUNS. In the passives derived from nouns, the derivational suffix -t must have originally been followed by the passivizing morpheme -b, but by the time when the *Calepino de Motul* was compiled, the triconsonantal cluster formed by the root-final consonant and the two suffixes was already being reduced by the insertion of an epenthetic vowel, /a/, between the two consonantal suffixes.⁵ To them was added the aspectual suffixes, -al (imperfective), -ih/-Ø (perfective), and -ac (subjunctive):

- (37a) ma bikin in hoppol ti baxal t u ca=ten
'never again will I begin to jest;

lic ix in jaic juramento t u noh in kab
and I swear by my right hand

v tial in tzectaba^l ua bin hoppocen in likes baxal
so that I am admonished if I begin to jest

te t u tan kin licil binele
in the days to come' (OX683-004A-007)
- (37b) ti tzectab_on y etel ti canbesbon t u men p^eob s. fran^{co}
'we were sermonized and we were taught by the Franciscan fathers' (TX567-014B-014D)
- (37c) va ix bin tacob v palilob ti baxal thane bin ja^haba^hcob ti mascab
'and if his sons should come to jest, they will be thrown in jail,

ca tzectaba^hcobe
and they will be sermonized' (OX650-35A-36B)

Like the passives derived from root intransitives, the passivizing suffix had been reduced from -b to a glottal stop by the middle of the nineteenth century, which was not represented in the orthography used at that time, and -abal and -abac became -al and -ac, respectively:

- (38a) la u nukul c in tzolic bix u nukul in menta^l hustisia
'this is the reason I am explaining what the significance is of justice being done

t u men in sihsah vinicilob ll okol cab
by my engendered people in the world' (V. Bricker 1981a:196, lines 310–314)

- (38b) mix hun ppe^l hustisia bin menta^c ten ma t u beeli
 'not a single judgment that will be made for me that is not just' (V. Bricker 1981a:195, lines 273–275)

The same changes are evident in Modern Yucatec today in the imperfective (-áʔal) and subjunctive (-áʔak) passive stems of transitives derived from nouns, but not in their perfective stem (-áʔab'), which did not reduce -b' to a glottal stop, but lengthened the epenthetic vowel that separated it from the transitivizing suffix -t and inserted a glottal stop in it:⁶

- (39a) mináʔan p'aaš máʔa t u b'óʔo(l)táʔa^l
 'there is no debt that is not paid' (V. Bricker et al. 1998:35)
- (39b) ʔ'iib'táʔab' t u mèn tèeč
 'it was written by you' (V. Bricker 1978:14)
- (39c) màas k u b'in uy áʔal tíʔ e ʔ'ùul káʔah b'óʔoltáʔak réemplasóʔ
 'more went to tell a white man that a replacement should be paid
- kéeh káʔah šíʔik
 that he might go' (SOT971B:14)

The imperfective passive stems of transitives derived from other nouns that are listed as entries in the Calepino de Motul appear in Tables 7-3 and 7-4.

1.2.2.3. THE ANTIPASSIVE VOICE IN TRANSITIVES DERIVED FROM NOUNS. The nominal root or stem from which a transitive verb is derived serves as the imperfective antipassive stem with no suffix. Thus, u tzeec can mean both 'his sermon' and 'he preaches.' The perfective and subjunctive stems of such antipassives take the derivational suffix -n, which is followed by the aspectual stem suffixes -i/-Ø in the first case and -ac in the second:

- (40a) ah-tancun a ich ti p^e tamuk v tzeec_
 'face the priest while he preaches!' (Ciudad 1600?: fol. 28v)
- (40b) tuchijx ca kuchic ca tzeecⁿⁱ ti hach talan
 'and when he arrived, he preached very solemnly
- ti lic v nohcinic v cilich sacramentoil altar
 in praise of the Holy Sacrament of the altar' (Ciudad 1600?: fol. 407r)
- (40c) haazⁿⁱ in yum ti be t u men vkah
 'my father suffered on the road because of thirst' (Ciudad 1600?: fol. 170v)
- (40d) haazⁿacen t u men vijh
 'I may suffer because of hunger' (Ciudad 1600?: fol. 170v)

The same pattern of treating the nominal root or stem as the imperfective antipassive of transitives derived from nouns is found in Modern Yucatec.⁷ The examples in (41a–c) contrast the imperfective active and antipassive stems derived from meyah 'work':

Table 7-3. Passives based on transitive stems derived from monosyllabic noun roots with -t in the Calepino de Motul (Ciudad Real 1600?). Phonetic spellings represent reflexes in Modern Yucatec.

Nominal Stem	Phonetic Spelling	Transitive Stem	Passive Stem
beel 'road, way'	b'èel	beel-t 'do, make, cause'	beel-t-ab-al 'be done, made, caused'
bool 'payment, reward, daily wage, price'	b'ó?ol	boo(l)-t 'satisfy, pay, reward'	boo(l)-t-ab-al 'be paid'
can 'talk, chat, story, conversation'	?	can-t 'tell, relate, recount'	can-t-ab-al 'be told, related, recounted'
çam 'usual cost, expenditure'	?	çam-t 'spend, pay expenses'	çam-t-ab-al 'be spent, paid (expenses)'
çic 'palm leaves'	?	çic-t 'cover house with thatch'	çic-t-ab-al 'be covered (house with thatch)'
tzeec 'sermon'	čé?ek	tzeec-t 'punish, correct, preach'	tzeec-t-ab-al 'be punished, corrected, reprimanded'
ɔib 'writing, letter, painting'	č'íib'	ɔib-t 'write, paint, draw'	ɔib-t-ab-al 'be written, painted, drawn'
ah chaan 'spectator, onlooker'	čá?an	chaan-t 'watch, behold, view, look on'	chan-t-ab-al 'be viewed, watched'
ah čhuuc 'spy, scout, look out for enemies or game'	h č'úuk	čhuuc-t 'ambush, watch, spy, scout terrain'	čhuc-t-ab-al 'be ambushed, watched, spied on, scouted (terrain)'
kuul 'God, idol'	k'uh	kuul-t 'treat as god, value'	kuul-t-ab-al 'be worshipped, adored'
men 'occupation'	mèen	men-t 'make, do'	men-t-ab-al 'be made, done'
miç 'sweeping'	míis	miç-t 'sweep, clear vegetation'	miz-t-ab-al 'be swept, cleared'
naat 'intelligence, reason, knowledge, understand- ing, judgment'	ná?at	naat-(t) 'know, understand, reason, guess'	naat-(t)-ab-al 'be understood, known'

Table 7-4. Passives based on transitive stems derived from disyllabic noun roots with -t in the Calepino de Motul (Ciudad Real 1600?). Phonetic spellings represent reflexes in Modern Yucatec.

Nominal Stem	Phonetic Spelling	Transitive Stem	Passive Stem
alak 'domesticated animal'	ʔàalak'	alak-t 'raise animals to be tame'	alak-t-ab-al 'be raised (tame animal)'
çacal 'length of woven cloth'	sakal	çac-t 'weave'	çac-t-ab-al 'be woven'
çilib 'example'	ʔ	çilib-t 'imitate, copy, follow'	çilib-t-ab-al 'be imitated, copied, followed'
ah mahan 'delinquent borrower'	mahàan	mahan-t 'lend, borrow'	mahan-t-ab-al 'be lent, borrowed'
matan 'alms, charity, mercy, grace, benevolence'	máatan	matan-t 'receive, beg for alms or grace'	matan-t-ab-al 'be received, beseeched (alms, grace)'
pazal 'decoy'	ʔ	pazal-t paz-t 'attract with decoy, deceive'	paz-t-ab-al 'be deceived'
tumut 'plan, advice'	ʔ	tum-t 'consider, try, test, taste'	tum-t-ab-al 'be considered, tried, tested, tasted'

(41a) táan in meyahtik in yùum
'I am serving my father' (V. Bricker et al. 1998:183)

(41b) k in meyah_ tí? h wàan
'I work for John' (V. Bricker et al. 1998:183)

(41c) le máaš u k'áat meyah_ k u meyah_
'he who wants to work works' (V. Bricker et al. 1998:183)

The ones in (41d–e) show that, in negation, the subjunctive stem can have a present perfect meaning that contrasts with the finality of the perfective aspect:

(41d) má? meyahna~~h~~eni?
'I didn't work' (V. Bricker et al. 1998:183)

(41e) má? meyahna~~k~~eni?
'I haven't worked' (V. Bricker et al. 1998:183)

Table 7-5. Passives of laryngeal-medial transitive roots in the Calepino de Motul (Ciudad Real 1600?). Phonetic spellings represent reflexes in Modern Yucatec.

a. Transitive roots with both inherited and innovated passives

Transitive Root	Phonetic Spelling	Gloss	Inherited Passive	Innovated Passive	Gloss
huy	húuy	stir, agitate	huybul	huybal	be stirred, agitated
kel	k'éel	toast	kelbel	kelbal	be toasted
leɔ	léeg'	lick	leɔbel	leɔbal	be licked
lil	líil	shake	lilbil*	lilbal*	be shaken
mek	méek'	embrace	mekbel	mekbal	be embraced
poc	pók	heat in fire, roast	pocbol	pocbal	be heated in fire, roasted
pol	pól	plane wood, dress stone	polbol	polbal	be planed (wood), dressed (stone)
tet	téet	choose, select, elect	tetbel	tetbal	be chosen, selected, elected
t'ho	t'óoh	strike, hit stone	t'ho	t'ho	be struck, hit (stone)
xepp	šé?ep'	pinch	xeppbel	xeppbal	be pinched
xox	?	relate miseries	xoxbol	xoxbal	be related (miseries)
yey	yéey	choose, elect	yeybel	yeybal	be chosen, elected

1.2.3. THE PASSIVE VOICE IN TRANSITIVE ROOTS WITH A MEDIAL LARYNGEAL. During the sixteenth century, root transitives could be distinguished from derived transitives in terms of their subjunctive suffix, -Vb (V echoes the vowel in the root) (see **1.2.1.** in Chapter 5), and they had three shapes: CVC, CV?VC and CVhC or, possibly, CVVC (see **2.3.2.3.** in Chapter 3). The passive inherited from Proto-Yucatecan did not distinguish among these shapes, marking them all with the suffix -b, followed by the -VI (imperfective), -i (perfective), and Vc (subjunctive) suffixes (V echoes the vowel in the root).

By the late sixteenth century, however, when the Calepino de Motul was being compiled, significant changes had already taken place in the passive of CVC roots, as detailed in **1.1.2.** above. In the case of the CV? and CVh roots, that change was only partial, because they ended in the laryngeals, /ʔ/ and /h/, which blocked the reduction of -b (phonetic [-bʔ]) to a glottal stop.

The presence of laryngeals or a long vowel and high tone in the CV?VC and CVhC/CVVC root transitives represented a more significant obstacle for the transformation of the inherited passive into its modern form. Because they already had a medial laryngeal, it was not possible to move another laryngeal into the root, and the passivizing suffix was not reduced to a glottal stop at that time. Instead, as the Calepino shows, the -VI suffix of the imperfective stem became -al, perhaps in imitation of the corresponding stem of passives derived from root intransitives and nouns. Eventually, the epenthetic vowel, /a/, was inserted between the final consonant of the root and the passivizing suffix -b, in tandem with this change in the passives of derived transitives.

The steps in this transformation are well documented in the Calepino. Table 7-5a shows that, before the end of the sixteenth century, twelve of the laryngeal-medial root transitives had both the inherited

Table 7-5. (cont'd.) Passives of laryngeal-medial transitive roots in the Calepino de Motul (Ciudad Real 1600?). Phonetic spellings represent reflexes in Modern Yucatec.

b. Transitive roots with only one possible passive form

Transitive Root	Phonetic Spelling	Gloss	Passive	Gloss
kat	k'áat	request, interrogate	katbal	be interrogated
lath	láat'	support [on palm of hand]	lathbal	be supported [on palm of hand]
mat	máat	receive alms	matbal*	be received (alms)
pan	páan	excavate, dig	panbal	be excavated, dug
paz	páʔas	scratch for worms	pazbal	be scratched for (worms)

c. Transitive roots with only inherited passive

Transitive Root	Phonetic Spelling	Gloss	Inherited Passive	Gloss
col	kóol	pull, tug	colbol	be pulled, tugged
ɔil	ǵ'íil	peel fruit	ɔilbil	be peeled (fruit)
chich	č'íič'	gather, pick up	chichbil	be gathered, picked up
nol	nóol	suck candy, fruit with large seeds	nolbol	be sucked (candy, fruit with large seeds)
tooc	tóok	burn	tocbol	be burned

d. Transitive roots with only innovated passive

Transitive Root	Phonetic Spelling	Gloss	Innovated Passive	Gloss
cuuz	kuʔusʔ	clean lightly with cloth	cuzbal	be cleaned lightly with cloth
ɔuɔ	ǵ'úʔuǵ'	suck, sip	ɔuɔbal	be sucked, sipped
chuy	č'úuy-t	hang up	chuybal chuyabal	be hung
puç	púus-t	wipe with cloth	puçbal puçabal	be wiped
tit	tíit	shake	titbal	be shaken

* "Accent on first syllable"

and modified forms of the passive. The passives of five root transitives in this group were indeterminate because the root vowel was [a], and the -bal suffix could have represented both the inherited and the intermediate forms of the passive (Table 7-5b). Five root transitives had only the inherited form of the passive (Table 7-5c). And five root transitives had only the intermediate form of the passive (Table 7-5d). In the entire group, only two passives exemplified the next step in the transformation to the modern form: both

čhuybal and čhuyabal are listed as the alternative passive stems of čhuy ‘to hang up’ (Table 7-5d). And the alternative passive stems of puç ‘wipe with cloth’ are puçbal and puçabal.

These changes are not as well represented in example sentences in the Calepino de Motul and other sixteenth- and early seventeenth-century dictionaries. The examples in (42a–c) compare the perfective active and passive stems of tet ‘to choose, select, elect’:

- (42a) v tetahech Dios ti benel ti caan
 ‘God chose you to go to heaven’ (Ciudad Real 1600?: fols. 417v-418r)
- (42b) tetbiob t u men Dios ti benel ti caan
 ‘they were chosen by God to go to heaven’ (Ciudad Real 1600?: fol. 418r)
- (42c) tetbiob t u men Dios ti xijc ti caan
 ‘they were chosen by God to go to heaven’ (Ciudad Real 1600?: fol. 418r)

The tetbiob examples in (42b–c) would have represented the perfective stems of both the inherited and intermediate passives of tet.

The Calepino lists tocbol ‘be burned’ as the only passive form of tooc ‘to burn,’ but the San Francisco Dictionary contains a sentence with tocbal, suggesting that both forms of the passive were in use at one time:

- (43a) tii uil u tocbalob
 ‘there they could be burned’ (Michelon 1976:340)

By the middle of the eighteenth century, they had both been replaced by tocabal:

- (43b) hex lic u katice lay hoyobe
 and what he wants is this spoon-like censer
- licil v tocabal pome
 with which incense is burned’ (Gordon 1913:38)

The last step in the evolution of the inherited passive of tooc (phonetic [tóok]) into its present form in Modern Yucatec was the reduction of the passive suffix -b (phonetic [-bʔ]) to a glottal stop:⁸

- (44a) wa k uy ilik máʔalobʔ bʔèetáʔanileʔ
 ‘if he sees that it is done well,
- k uy áʔalik bʔáʔaš kʔiin u tóokáʔal
 he says on which day it is burned
- tiʔal ka túuštáʔak bomberóʔobʔ
 in order that a fireman might be sent
- kaláʔantik máʔ u púuʔul (l)e kʔáakʔoʔ
 to watch that the fire does not escape’ (after Domínguez Aké 1996:62)

- (44b) t u gobynernóil le ?áalvaradóo?
'during Alvarado's government,

t u láakal kàahó?ob' tóoká?ab' le sáantó?ob'o?
those saints in all the towns were burned;

waye? lah tóoká?ab'ih
here, they were all burned' (SOT971B:3)

- (44c) kuš túun leti? (l)e tóoká?ak le yá?aškab'a?o?
'and what about when Yaxcaba was burned?' (SOT971B:2)

1.2.4. VOICE IN TRANSITIVE VERBS DERIVED FROM ROOT TRANSITIVES. A few root transitives in Modern Yucatec may be retransitivized by suffixing -t to the transitive root (V. Bricker et al. 1998:339–340):

(45)	Root Transitive	Derived Transitive
	?uč' 'to dent'	?ú?uč'-t 'to scrub'
	?uk' 'to drink'	?uk'-t 'to drink up'
	b'ay 'to straighten'	b'áay-t* 'to stroke, caress'
	haš 'to lay strands of rope; beat /chocolate/'	háaš-t 'to wipe, stroke'
	hoč 'to harvest /maize/'	hó?oč-t* 'to rasp, grate, shave'
	k'ay 'to sing'	k'á?ay-t* 'to proclaim, cry out, hawk'
	noš 'to tilt'	nó?oš-t 'to wedge'
	piš 'to cover, wrap up'	pí?iš-t* 'to roll up, wind'
	p'ay 'to crumble, shred'	pá?ay-t 'to crumble, pulverize'
	p'ol 'to swell, inflate; develop'	p'ó?ol-t 'to develop'
	p'uy 'to snap off'	p'ú?uy-t 'to shred, crumble'
	šač 'to part, separate, spread /legs/'	šáač-t 'to comb'
	wol 'to form ball, round'	wó?ol-t 'to surround, bother'
	yač' 'to flatten, smash, crush'	yá?ač'-t 'to knead'
	yuč' 'to crumple, fold, dent/metal/'	yú?uč'-t 'to rub /eyes/; scrub/clothes/'

The asterisked retransitivized stems in (45) have counterparts in the Calepino de Motul. Note that, with one exception, retransitivization also involves the insertion of a glottal stop in the root or the lengthening of the root vowel. The semantic force of retransitivization seems to be to intensify the meaning of the root, as from ?uk' 'to drink' to ?uk'-t 'to drink up':

- (46a) yan wá aw uk'ik sa?
'must you drink gruel?' (Blair and Vermont-Salas (1965:121)

- (46b) k in táa? ?uk'tik
'I drink it in one gulp' (V. Bricker et al. 1998:20)

The Calepino contains only two sentential examples of retransitivized stems, both illustrating the active voice of bayt 'to console, caress, stroke gently' (from bay 'to straighten, stroke'):

- (47a) lic v baitic v hol ah keban ciġin
 ‘the Devil coaxes the sinner [literally, the Devil caresses the hair of the sinner]’ (Ciudad Real 1600?: fol. 42v)
- (47b) chan a baite v pol batab
 ‘don’t flatter the leader! [literally, don’t caress the hair of the leader]’ (Ciudad Real 1600?: fol. 42v)

The imperfective aspect is used in (47a) and the subjunctive in (47b) (bai serves as an alternative spelling of bay in the Calepino). They can be compared with a recent example of b’áaytik pòol in Modern Yucatec:

- (47c) le šī?ipalo? táan u b’áaytik u pòol le š č’úupalo?
 ‘that boy is stroking the head of that girl’ (V. Bricker et al. 1998:25)

My sources for Colonial Yucatec do not have illustrative examples of the passive or antipassive voices for this retransitivized verb. The following examples illustrate the three voices of k’á?ayt ‘to proclaim, cry out, hawk’ (from k’ay ‘to sing’) in Modern Yucatec (V. Bricker et al. 1998:340):

(48)	<u>Active</u>	<u>Passive</u>	<u>Antipassive</u>
	táan in k’á?aytik ‘I am proclaiming it’	táan u k’á?aytá?al ‘it is being proclaimed’	táan in k’á?ay_ ‘I am proclaiming’
	t in k’á?aytah ‘I proclaimed it’	k’á?aytá?abih ‘it was proclaimed’	k’á?aynahen ‘I proclaimed’
	ká?ah in k’á?ayteh ‘I might proclaim it’	ká?ah k’á?aytá?ak ‘it might be proclaimed’	ká?ah k’á?aynaken ‘I might proclaim’

They follow the pattern for transitives derived from nouns (see **1.2.2.1.–1.2.2.3.** above).

1.2.5. VOICE IN TRANSITIVES DERIVED FROM SPANISH LOANS. Spanish loans showed up in documents penned by Maya scribes soon after the Conquest was completed, but for the most part the Spanish lexemes were nouns. Spanish verbs showed up more than a century later. The most common strategy in borrowing verbs from Spanish was to treat the infinitive as a noun, from which the transitive stem was derived by suffixing -t.

1.2.5.1. THE ACTIVE VOICE IN TRANSITIVES DERIVED FROM SPANISH LOANS. The earliest example of a Spanish verb in my database, from Tekanto and dated to 1670, is an active transitive inflected for the perfective aspect with -ah:

- (49) t u cuncistaltahhob lun v chibalob⁹
 ‘they conquered their lineage land,
 heuac vay t u yax chucahhob lun ca t vlob
 but here they first captured the land when they arrived;
 tal v chibalob tal mejico lae
 their lineage came; it came from Mexico’ (TK670-004C-007)

These lines refer to the Central Mexican mercenaries whom the Spaniards brought with them to help in the Conquest of the Yucatecan Maya. They were rewarded for their service in the Conquest with land in Maya communities that would be inherited by their descendants. The Spanish verb in question is the infinitive, *conquistar* ‘to conquer’ (the /r/ has been replaced with /l/ in this document because [r] rarely appears in the Maya language of Yucatan).

Another Spanish verb, which appears with some frequency in Colonial Maya documents, is the infinitive, *firmar* ‘to sign.’ The earliest example of this verb in my database, which comes from Yaxakumche in 1727, is inflected with the imperfective suffix -ic:

- (50) lay u hahil lic ca firmartic
 ‘this is the truth with which we sign’ (XIU727A)

The subjunctive stem of this derived transitive appears first at Yaxa in 1764 and was marked by -e:

- (51) ca talsic u firmarte ca noh tziccanil ca yume
 ‘we bring it so that our great reverend father might sign it’ (XIU764A)

1.2.5.2. THE PASSIVE VOICE IN TRANSITIVES DERIVED FROM SPANISH LOANS. The suffix -ab marked the passive voice of transitives derived from Spanish loans in Colonial Yucatec. It is documented for the imperfective (-al) and perfective (-i/-Ø) aspects with the Spanish infinitive, *ganar* ‘to win’:

- (52a) ɔoci v ganartabal t u men Teodora
 ‘he finished being vanquished by Teodora’ (Kaua n.d.:I, 54L)
- (52b) ca tun ganartab_ u batelob t u men ɔulob
 ‘and then their battle was won by the foreigners’ (Código Pérez n.d.:48)

By the middle of the nineteenth century, however, the /b/ in -abal had been reduced to a glottal stop, which was never recorded in the orthography in use at the time, as can be seen in the following example of an imperfective passive based on *firmar* ‘to sign’:

- (52c) ɔoc u firmartal u actail
 ‘the certificate finished being signed’ (NAN851A)

The subjunctive stem of a passive based on a transitive derived from a Spanish loan can be illustrated with -ac suffixed to the Spanish infinitive, *purgar* ‘to purge,’ and the passive suffix -ab:

- (52d) paibe bin purgartabac ua yan v ppu bail ti
 ‘first, he will be purged if he has gas’ (Kaua n.d.:II, 10R)

1.2.5.3. THE ANTIPASSIVE VOICE IN TRANSITIVES DERIVED FROM SPANISH LOANS. The imperfective stem of antipassives derived from Spanish loans was marked by no suffix, which meant that it was represented by the Spanish infinitive alone:

- (53) y. xan a purgar
 ‘and if you also purge,

c u kaxil ti max c uy ukik yax halal chee
 whoever drinks¹⁰ the slipper flower will defecate' (Kaua n.d.:II, 25R)

There are no examples of the perfective stem of antipassives derived from Spanish loans in the Colonial and nineteenth-century documents in my database, but I can offer the following examples from Modern Yucatec based on the Spanish infinitives, *aliviar* 'to alleviate, assuage, soothe, relieve' and *juntar* 'to join, connect, unite; assemble, congregate, gather':

(54a) b'isá?ah ?iknal doktóor
 'she was taken to a doctor,

ká?ah ?áalibyàarnahih
 and she recovered' (EBT979B)

(54b) pwes ká?ah húuntarnahó?on u máasil hèenteh túune?
 'well then we, the rest of the people, assembled then' (EBT979C)

The subjunctive stem of such antipassives can be illustrated by two examples of mid-nineteenth-century date:

(55a) mix bikin bin ganarnac ÷ulob enemigoob
 'the enemy whites will never win' (V. Bricker 1981a:200, lines 447–448)

(55b) halili le cru zoob bin ganarnace
 'only these people of the Cross will win' (V. Bricker 1981a:200, lines 449–450)

1.2.6. VOICE IN TRANSITIVES DERIVED FROM ADJECTIVES, PARTICLES, POSITIONALS, AND AFFECTS. Two suffixes, *-cin* and *-cun*, derived transitives from adjectival, particle, positional, and affect roots and stems in Colonial Yucatec. A rule of reverse vowel harmony dictated that the suffix with the front vowel, /i/, followed roots containing the back vowels, /o/ and /u/, and that the suffix with the back vowel, /u/, followed roots containing the non-back vowels, /a/, /e/, and /i/. The cognates of these suffixes in Modern Yucatec are *-k(i)in* and *-k(ú)un*.

1.2.6.1. THE ACTIVE VOICE IN TRANSITIVES DERIVED FROM ADJECTIVES, PARTICLES, POSITIONALS, AND AFFECTS. The active voice of transitives derived by *-cin* or *-cun* was marked by *-ic* (imperfective), *-ah* (perfective), and *-e/-Ø* in Colonial Yucatec. The following examples illustrate their use with *utz-cin* 'to fix, repair, improve' (from *utz* 'good, just, well made'):

(56a) v nak v xuli tun uil y utzciniç
 'he no longer fixes it' (Ciudad Real 1600?: fol. 322v)

(56b) bic v ÷ib au ol ca av utzcina^h cuchi
 'what was on your mind when you fixed it?' (Ciudad Real 1600?: fol. 444r)

(56c) baix ÷ibanil ychil v testamento y utzcina^h ca cimi Fran^{co} Chim lae
 'and thus it is written in the testament that was executed when this Francisco Chim died'
 (DZ593B-107A-B, 108)

- (56d) ma=bal çihunbil t a pucçikal ca bin av utzcín_
 'you will fix nothing voluntarily' (Ciudad Real 1600?: fol. 103r)

The examples in (57a–b) show that -cin can occur with root-medial /o/:

- (57a) hi=uil tab citan v loçhcinic v baceł
 'who knows where he will bend his bones! [i.e., where he will die]' (Ciudad Real 1600?: fol. 271v)
- (57b) a menyah xacin bin in tohcin
 'will I repair your work?' (Ciudad Real 1600?: fol. 454r)

On the other hand, -cun co-occurs only with root-medial /a/, /e/, and /i/:

- (58a) ma a ha^hhc^unic manaan maix a ma^ana^anc^unic
 'don't confirm what isn't, nor deny what is!' (Ciudad Real 1600?: fol. 172v)
- (58b) v ma^ana^anc^unah v t^han t u yax chun v confession
 'he denied it at the beginning of his confession' (Ciudad Real 1600?: fol. 296r)
- (58c) kux=il ke^xxc^unicon y etel na^hch^uc^unicon y icnal Dios
 'hatred separates us and alienates us from God' (Ciudad Real 1600?: fol. 245v)
- (58d) ma au ixma tijc^unic a yum
 'don't insult your father!' (Ciudad Real 1600?: fol. 229v)

In a few derived transitive stems in the Calepino de Motul, -cin and -cun are followed by -t, the suffix commonly used for deriving transitives from nouns, without apparent change in meaning. Compare, for example:

- (59a) yan a paycun çuplal
 'you have bewitched a woman' (Ciudad Real 1600?: fol. 361v)
- (59b) yan va a paycuntic çuplal
 'have you bewitched a woman?' (Ciudad Real 1600?: fol. 361v)

In the next example (60), -cin is followed by -t and can be compared with the example of utzcinah in (56b):¹¹

- (60) lay tac etsah tech u lumil a kaxex
 'this land of your forest that we showed you
- t au utzcintah^ex a hun=kul=tialtex
 that you-all certified had belonged to you since time immemorial' (SB596C-299A-C)

The number of examples of -cin and -cun with -t gradually increased over time and eventually completely replaced those without it.

By 1850, -s had joined -t as an alternative suffix to be added to -cin and -cun:

- (61a) le bax c inu almah=tħantica
'these things I command

ti=olal u cahcunt(i)cob t u pucsikalob
in order that they cause to reside in their hearts

t u lalac le inu aalmah=tħana
all these commandments of mine' (V. Bricker 1981a:191, lines 134–137)

- (61b) in yamail cristiano cahex
'my beloved Christian villagers,

cahcunsex t u lalac inv almah=tħan t a pucsikalexo
you should cause all those commandments of mine to reside in your hearts' (V. Bricker 1981a:201, lines 489–493)

The causative stem (cahcunt[i]cob) in (61a) contains the causative suffix -cun followed by -t, whereas the corresponding stem in (61b) (cahcunsex) contains the same causative suffix followed by -s.

All such causative stems in Modern Yucatec today have two forms, one with -t following either -k(i)in or -k(ú)un, and the other with -s following these causative suffixes:

- (62a) u b'áašal=t'āan le wíiniko? k u čahkúunšik le š č'úupalo?
'that man's joke, it makes that girl blush' (V. Bricker et al. 1998:59)

- (62b) t a k'omohkíintik le lùučo?
'you are causing that gourd to stink' (V. Bricker et al. 1998:156)

- (62c) t in k'ab'a?kúunšah h wāan le čāam=b'alo?
'I named that child John' (V. Bricker et al. 1998:142)

- (62d) le wāakšo? t u k'askúunṭah in kòol
'that cow destroyed my cornfield' (V. Bricker et al. 1998:148)

Each of these verbs has a second form—čahkúunṭik, k'omohkíinšik, k'ab'a?kúunṭah, and k'askúunšah—that could have substituted for the verbs in these example sentences without any change in meaning.

1.2.6.2. THE PASSIVE VOICE IN TRANSITIVES DERIVED FROM ADJECTIVES, PARTICLES, POSITIONALS, AND AFFECTS. The passive voice of transitives derived by -cin and -cun was marked by -ab, to which -al (imperfective), -i/-Ø (perfective), and -ac (subjunctive) were added in Colonial Yucatec:

- (63a) keban=oltzil v cocintabal ix ma=yum ix ma=naa
'it is pitiful for orphans to be mistreated' (Ciudad Real 1600?: fol. 243r)

- (63b) yanil u uilal v chichcunabal v mul=tumutob
'it was necessary for their deliberations to be ratified' (MA596-003A-B)

- (63c) v yax culcintab u noh mul=tunil
'the great mound was the very first one that was established' (SB596B-067A-B)
- (63d) vacunabech t a beel ti ma a nahma
'you were placed in your position without deserving it' (Ciudad Real 1600?: fol. 294r)
- (63e) ma taben yan cohom ca bin cocintabac in yum inen cen batab
'I will not be there when my father is insulted, because I am the leader' (Ciudad Real 1600?: fol. 226v)

The /b/ in -ab has been reduced to a glottal stop in Modern Yucatec:

- (64a) in kiike? ʔ'óʔok u kahkúuntáʔal t u mèn h pèedroh
'as for my older sister, she's been housed by Peter [living together out of wedlock]' (V. Bricker et al. 1998:120)
- (64b) táan u šiʔkuntáʔal h pèedroh t u mèn u čič
'Peter is being made a man by his grandmother' (V. Bricker et al. 1998:257)
- (64c) ʔòoš p'éel bàarkoh b'in u hèenteh káʔačih
'they say that there were three boats of people then;
káʔah p'éeloe? lah šiʔskuntáʔab'ih
as for two of them, they were ground to bits' (CHC971B:13)
- (64d) tíʔiʔ séen ʔóoʔilkúunsáʔab' ʔanimáas Antonio Aguilar
'there, the late Antonio Aguilar was impoverished' (SOT971A:6)

1.2.6.3. THE ANTIPASSIVE VOICE IN TRANSITIVES DERIVED FROM ADJECTIVES, PARTICLES, POSITIONALS, AND AFFECTS. The antipassive voice in transitives derived by -cin and -cun is not detectable in my database, probably because the antipassive suffix, -n, cannot be distinguished from the final consonant in -cin and -cun.

2. USATIVE TRANSITIVES

The Calepino de Motul lists a number of transitive stems that are derived from nominal roots with the suffixes, -in or -int, which often have the meaning 'to take for' or 'to acquire' the object referred to by the noun from which it is derived, and for this reason, -in has been called a "usative" suffix (-t is the suffix that derives transitive stems from nominal roots) (V. Bricker 1970). Below are listed some of the transitive verbs that co-occur with this suffix and the nouns from which they are derived:

- | | | | | |
|------|-------------|-----------------------|-------------------|---|
| (65) | Nominal | | Usative | |
| | <u>Root</u> | <u>Gloss</u> | <u>Stem</u> | <u>Gloss</u> |
| | ahau | ruler | ahau <u>in</u> | to take for king, have as king |
| | bal | brother-in-law | bal <u>in</u> | to take for relative by marrying sister |
| | cen | decoration, adornment | cen <u>in</u> (t) | to take as decoration |

ex	breeches, trousers	exin(t)	to serve as breeches or trousers for someone
kaba	name	kabatin	to take for a name
kuul	god	kuulin(t)	to take for a god; worship false god
lak	companion, neighbor	lakin(t)	to accompany, take for a companion
mam	maternal grandfather	mamin(t)	to become related through marriage
naa	mother	naain(t)	to take for a mother
nen	mirror	nenin(t)	to take for a mirror
nok	clothes	nokin	to use as clothes
och	food	ochin(t)	to take for sustenance or food
pak	benefit, use	pakin	to benefit from, thrive, prosper
ppic	overload	ppicin	to take as overload
uey	concubine	ueyin(t)	to take as concubine
tzub	prostitute	tzubin(t)	to take for a concubine

Some examples of their use in context appear below (see also [69a–d]):

- (66a) in mamintah batab
'I acquired the leader as a relative [when my son married his daughter's daughter]' (Ciudad Real 1600?: fol. 293r)
- (66b) in naainah Juana
'I took Jane for my mother' (Ciudad Real 1600?: fol. 321v)
- (66c) cha in nok a nokin
'take my clothes to use them for yourself!' (Ciudad Real 1600?: fol. 331r)
- (66d) bin vochinte au och
'I will take your food as mine' (Ciudad Real 1600?: fol. 345v)
- (66e) yan xin a tzubintic hun=payil chuplal
'have you taken another woman as a concubine?' (Ciudad Real 1600?: fol. 120v)

Within this group of transitive stems with the usative suffix are three terms that refer to taking or acquiring someone as a kinsman: bal-in, mam-in(t), and naa-in(t). There is a much larger class of such verbs derived from kin terms with -in(t) in Modern Yucatec; in fact, virtually any kin term can be transitivized in this way (V. Bricker 1970):

(67) Nominal		Usative	
Root	Gloss	Stem	Gloss
ʔaal	woman's child	ʔaalint	to adopt
ʔilib'	daughter-in-law	ʔilib'int	to acquire as a daughter-in-law
b'àal	brother-in-law	b'àalint	to acquire as a brother-in-law
háʔan	son-in-law	háʔanint	to take for a son-in-law
kìik	older sister	kìikint	to take for an older sister
tàatah	father	tàatahint	to acquire as a father
yùum	father	yùumint	to take for a father

As in Colonial Yucatec, the usative suffix is not limited to kin terms in Modern Yucatec:

(68) Nominal		Usative	
Root	Gloss	Stem	Gloss
š b'áʔal	female, girlfriend [slang]	š b'áʔal <u>int</u>	to take for a girlfriend
k'úʔum	hominy	k'úʔum <u>int</u>	to use as hominy
láak'	other, sibling	láak' <u>int</u>	to accompany, escort
neh	tail	neh <u>int</u>	to tag along
pàal	infant, child, minor	pàal <u>int</u>	to give birth; adopt

Contextual examples of the use of the usative suffix with a variety of nouns, including one kin term, appear below:

- (69a) nuk u háʔaninteh
'he is going to make him his son-in-law' (V. Bricker et al. 1998:97)
- (69b) t in k'ab'aʔintah h pèedroh
'I took "Peter" as my name' (V. Bricker et al. 1998:142)
- (69c) le ʔiʔinaheʔ t in k'úʔumintah
'this seed, I used it for hominy' (V. Bricker et al. 1998:159)
- (69d) mikáʔah im pàalintech
'I'm going to adopt you' (V. Bricker et al. 1998:207)

3. DEFECTIVE VERBS

Both Colonial and Modern Yucatec have three transitive verbal expressions that are defective in the sense that they are not inflected for aspect with either suffixes or head words. One is based on the transitive root, kat (phonetic [k'áat]) 'to want.' Another is derived from oh, a root of unknown meaning. And the third is a compound stem, composed of an intransitive root, kah (phonetic [k'áʔah]) 'to remember,' and a nominal root, ol (phonetic [ʔóol]) 'heart (non-corporeal); mind, will, desire, energy, spirit' (see 6. in Chapter 6). "Normal" versions of these defective verbs with related meanings are produced by suffixing -t to the defective stems and inflecting them with aspectual suffixes and head words.

3.1. DEFECTIVE AND NORMAL VERSIONS OF KAT. The defective version of kat was kati in Colonial Yucatec, which is glossed as 'to want, lack; be necessary' in the Calepino de Motul (Ciudad Real 1600?: fol. 240r). These meanings are documented in the following contextual examples from the Calepino:

- (70a) bahun v tan a kati
'how wide a piece do you want?' (Ciudad Real 1600?: fol. 410r)
- (70b) v chay takin v kati
'the rest of the money is lacking' (Ciudad Real 1600?: fol. 136r)

- (70c) a kati au atante Maria
'do you want to marry Mary?' (Ciudad Real 1600?: fol. 37v)
- (70d) yeybil v kati
'it is necessary to be chosen' (Ciudad Real 1600?: fol. 218r)
- (70e) in kati in citz in ba t in tzaa
'I want to withdraw from the dispute that I initiated' (Ciudad Real 1600?: fol. 74v)
- (70f) in kati in helbez in beel te t in tan lic v talele
'I want to change my life from now on' (Ciudad Real 1600?: fol. 415v)

Page 149 of the Hocaba dictionary (V. Bricker et al. 1998) contains two examples of káatih, the Modern cognate of Colonial kati:

- (71a) b'á?áš a káatih
'what do you want?'
- (71b) le in k'aaatih
'that's what I want'

For the most part, however, k'áat (without the -ih suffix) has the same function as Colonial kati in Modern Yucatec:

- (72a) letí? le in káata?
'this is the one I want' (V. Bricker et al. 1998:149)
- (72b) in k'áat in maneh
'I want to buy it' (Blair and Vermont-Salas 1965:249)
- (72c) a ká(a)t ?uk'ul
'do you want to drink?' (Blair and Vermont-Salas 1965:250)

The normal version of kat was kat-t (phonetic [k'áat-t]) 'to ask, request, inquire, investigate, interrogate' in Colonial Yucatec. The suffixation of -t to kat resulted in an impermissible consonant cluster and the deletion of the root-final "t." The following examples illustrate the aspectual inflection of this version of kat with the imperfective (-ic) and perfective (-ah) aspectual suffixes and the aspectual particle, lic:

- (73a) v katah v boch ten vahi ten chaic
'she asked me for her toque as if it was I who had taken it' (Ciudad Real 1600?: fol. 438v)
- (73b) lic in katic justicia y okol Juan
'I request justice against John' (Ciudad Real 1600?: fol. 347v)

The normal version of *k'áat* in Modern Yucatec is identical to the defective version after the deletion of the final consonant in the root before the suffix *-t*. It is glossed as 'to request, ask, beg, implore, interrogate,' contrasting with the meaning of the defective version, 'to want.' The following examples illustrate the use of this version with the imperfective suffix *-ik* and the aspectual particles, *k* and *táan*:

- (74a) *k in k'áatik k'íimil*
'I beg for death' (V. Bricker et al. 1998:149)
- (74b) *táan in k'áatik b'ış u b'èel u k'ìik*
'I am asking him how his older sister is' (V. Bricker et al. 1998:149)

3.2. DEFECTIVE AND NORMAL VERSIONS OF OHEL. Transitive verbs are not normally marked by a *-VI* suffix, and in this respect, *ohel* (phonetic [ʔòohel]) 'to know /something/,' is a significant exception. The following contextual examples of *ohel* in the Calepino de Motul show that it is both transitive and defective in the sense that it is neither inflected with transitive aspectual suffixes, nor is it accompanied by aspectual head words:

- (75a) *ma vohel v ɔacal*
'I don't know what his remedy is' (Ciudad Real 1600?: fol. 124r)
- (75b) *v ppatahen ti bay hi=maac y ohelen*
'he abandoned me as though he knows me as just anyone' (Ciudad Real 1600?: fol. 419r)
- (75c) *ma vohel va=bal v kati*
'I don't know what he wants' (Ciudad Real 1600?: fol. 437r)
- (75d) *vohel a beel y etel a tucul*
'I know your deeds and thoughts well' (Ciudad Real 1600?: fol. 345v)
- (75e) *meteli tun bin a beeltic y oklal nonohech*
'it is better that you do it because you are skillful
- au ohel-ix t u lacal*
and know all about it' (Ciudad Real 1600?: fol. 305v)

The same is true of ʔòohel, the cognate of *ohel* in Modern Yucatec:

- (76a) *tene? má? inw òohel miš b'á?al*
'as for me, I know nothing' (V. Bricker et al. 1998:15)
- (76b) *aw òoh(e)lé?eš wá maya? t'àan*
'do you-all know the Maya language?' (Blair and Vermont-Salas 1965:34)
- (76c) *hay p'é t'àan aw ohel*
'how many languages do you know?' (Blair and Vermont-Salas 1965:66)

The normal version of *ohel* was *ohel-t* (phonetic [ʔohéel-t]) ‘to know /something/, recognize, understand, notice’ in Colonial Yucatec. Below are contextual examples of the inflection of this verb with the imperfective (-ic), perfective (-ah), and subjunctive (-e) suffixes:

- (77a) *ti ɔoci ynv oheltic v hahil t u beltah jus^{as} y etel gou,^r*
I finished knowing the truth of what the justices did with the governor
 t u pach v kaxob Di^o Couoh Aparisio Vc y v haanob
 behind the forests of Diego Couoh, Aparicio Uc, and their sons-in-law’ (DZ651D-503A-E)
- (77b) *he-x ca t inv oheltah cen gou^{or} y alde^s v kuchul termino can=ppel oras*
 ‘and here when I, who am the governor, with the justices, noticed that the end of four hours was approaching’ (MA733C-221A-D)
- (77c) *t u kaba-ix bolon pixan ca cilich colel ti hun=kul suhuy santa Maria*
 ‘and in the name of our blessed Lady, who is forever the Virgin Saint Mary,
 y ohelteob t u lacal vinicob
 whom all men might know’ (MA629-004A-005C)

The normal version of *ʔòohel* in Modern Yucatec is also derived by suffixing -t to the defective stem, yielding *ʔohéel-t* ‘to know /something/, understand, notice.’ The only contextual example of this verb in my database for Modern Yucatec is inflected for perfective aspect:

- (78) *t inw ohéeltah este u hóokol*
 ‘I noticed that this one was emerging’ (CHC971B:4)

3.3. DEFECTIVE AND NORMAL VERSIONS OF KAH=OL. The defective version of the compound stem, *kah=ol*, is not mentioned in the *Calepino de Motul*.¹² Only the intransitive phrase, *kahal ol* ‘to recognize,’ is listed there (Ciudad Real 1600?: fol. 233r), along with the contextual examples already illustrated in (41a–b) in Chapter 6.

On the other hand, *kah=ol-t* ‘to recognize, note, identify,’ the normal version of *kah=ol*, is mentioned in the *Calepino de Motul*, and it is illustrated there with several contextual examples, including:

- (79a) *in kah=oltah in çuyem*
 ‘I recognized my cape’ (Ciudad Real 1600?: fol. 234v)
- (79b) *kah=olte v uich a mektan paalilob*
 ‘identify the faces of the boys under your jurisdiction!’ (Ciudad Real 1600?: fol. 234v)

Another, much later, example of the use of the normal version of the compound appears in the *Book of Chilam Balam of Kaua*:

- (79c) *ca kah=oltic tech ah çacyah*
 ‘we identify it for you doctors
 ti lic tun a tuntic bal halab çac u kati kohane
 when you attempt to purge the patient’ (Kaua n.d.:II, 4L)

Modern Yucatec has both the defective and the normal versions of kah=ol. The defective version is k'ah=óol 'to know, be acquainted with.' Some examples of its use in context appear below:

- (80a) tóʔoneʔ k k'ah=óol letiʔ
'as for us, we know him' (Blair and Vermont-Salas 1965:66)
- (80b) a k'ah=óolen aw ohel máaʃen
'do you recognize me? do you know who I am?' (Blair and Vermont-Salas 1965:553)
- (80c) máaʃ le máakoʔ a k'ah=ol wáah
'who is that man? do you know him?' (Blair and Vermont-Salas 1965:65)

The normal version of the compound bears the transitivity suffix -t in Modern Yucatec: k'ah=óol-t 'to recognize, become acquainted with,' as in:

- (81a) in k'áat ká talaké(?)eʃ a k'ah=óolt le in t'àanahoʔ
'I want you-all to come to meet my household' (Blair and Vermont-Salas 1965:323)
- (81b) hun túul nohoč máak t in k'ah=óoltah téʔe
'one older man whom I recognized there,
- k u méentik kòol téʔe túʔuʃ k kòoloʔ
he cultivates a cornfield there, where our cornfield is' (SOT971B:15)

4. PLURALIZATION¹³

The distinction between singular and plural can be applied to three aspects of a transitive verb: (1) the subject, (2) the object, and (3) the action itself. Because Maya does not permit the same plural suffix to appear more than once in a verb stem, it is often difficult to determine whether it is the subject or the object (or both) that is being pluralized (see 1. in Chapter 4). In addition, it is necessary to determine whether a repeated action is applied to the same or several objects.

We can illustrate this problem with the verb p'eh 'to chip.' The third person durative form of this verb, táan u p'ehikóʔob', is inherently ambiguous. It can mean either 'he is chipping it,' 'he is chipping them,' 'they are chipping it,' or 'they are chipping them.' In order to specify that both the subject and the object are plural, the distributive suffix -láʔant may be added to the verb: táan u p'ehláʔantikóʔob' 'they are chipping them one after another.' If, on the other hand, the subject is singular and the object is plural, táan u p'ehláʔantik 'he is chipping them one after another' would be appropriate. This verb can be passivized by suffixing -láʔah to the passive stem of the verb: táan u p'éʔehláʔahal 'they are being chipped one after another.' A related adjectival form of these verbs has the shape CVC-eN/-uN-CVC: p'éehump'éeh 'chipped here and there' refers to several chipped cups, not a single cup chipped in several places.

A repeated action on a single object is indicated by reduplicating part or all of the verb stem: p'eh 'to chip': p'éʔep'eh 'to chip in several places.' The related adjectival stem is p'éʔep'éʔeh 'chipped in several places,' referring to a single cup or plate from which multiple chips have been removed (see Chapter 13 for a detailed discussion of such verbs and their related adjectives).

The relationships among the three sets of verbal and adjectival stems based on p'eh can be summarized as follows:

	<u>Action</u>	<u>Adjective</u>
Singular	p'eh 'chip'	p'èeh-el 'chipped'
Plural (Single Object)	p'é?ep'eh 'chip several times'	p'é?ep'é?eh 'chipped in several places'
Plural (Multiple Objects)	p'eh-lá?ant 'chip one after another'	p'éeh-um-p'éeh 'chipped here and there'

We can infer from this table that an expression like táan u p'ehikó?ob' is more likely to refer to a plural subject than to a plural object because the latter can be specified by suffixing -lá?ant to the verb stem.

5. TRANSITIVE COMPOUNDS

Compounding involves incorporating a noun, an adjective, or another verb into the transitive verb stem and normally suffixing -t to the compounded roots. Antipassive compounds lack -t; passive compounds retain it.

5.1. NOUN INCORPORATION. A noun that serves as the direct object of a transitive stem may become part of the active verb stem, as in the following examples listed in the Calepino de Motul:

(82)	<u>Transitive</u> <u>Root</u> chaa 'to loosen, untie; alleviate, assist'	<u>Noun</u> oc 'foot, leg'	<u>Compound</u> cha= <u>oc</u> -t 'to obstruct way; slacken, discourage'
	hel 'to avoid, be free from, get rid of'	pach 'back, rear side'	hel= <u>pach</u> -t 'to escape, avoid, get rid of; leave behind /companion/''
	hoy 'to pour out on ground /liquid/''	haa 'water, rain'	hoy= <u>a</u> -t 'to irrigate; urinate'
	lapp 'to grasp, seize, grapple, clutch'	kab 'hand, arm'	lapp= <u>kab</u> -t 'to enclose within fist'
	mac 'to cover, enclose'	booy 'shadow, shade'	mac= <u>boy</u> -t 'to shade, cast shadow'
	mac 'to cover, enclose'	pach 'back, rear, side'	mac= <u>pach</u> -t 'to defend, excuse from punishment; catch or punish for another's crime'

muc 'to bury, hide, conceal'	chek 'footstep, footprint, track (animal)'	mac= <u>chek</u> -t 'to deny, disclaim; hide; despise, scorn, look down on'
nac 'to bore, bother'	ol 'heart (non-corporeal), mind, will, desire, energy, spirit, condition, quality'	nac= <u>ol</u> -t 'to bore'
peɔ 'to pat, crush, smash, press'	tun 'stone'	peɔ= <u>tun</u> -t 'to place stone on object'
poc 'to toast /bread/, reheat over coals'	chuc 'live coal, charcoal, carbon'	poc= <u>chuc</u> -t 'to roast over hot coals'

Five of them are represented in context below:

- (83a) hach čhul luum ma a hoy=a-tic
'the earth is very wet; don't irrigate it!' (Ciudad Real 1600?: fol. 160r)
- (83b) v mac=pach-taken ah ocolob
'the thieves punished me [for their crimes]' (Ciudad Real 1600?: fol. 283v)
- (83c) baci a cha=oc-te a ximbal
'don't block the way! [don't let slacken! don't discourage]' (Ciudad Real 1600?: fol. 138r)
- (83d) t in hel=pach-tah haa ti be
'I avoided the water on the road' (Ciudad Real 1600?: fol. 183r)
- (83e) lic in nac=ol-tic Juan y etel v pectzile
'I am bored with John and his fame' (Ciudad Real 1600?: fol. 316v)

The same pattern of moving the direct object of a verb into the transitive stem can be documented in Modern Yucatec:

- | | | | |
|------|------------------------|---------------------|----------------------|
| (84) | Transitive | | |
| | <u>Root</u> | <u>Noun</u> | <u>Compound</u> |
| | č'ak | če? | č'ak= <u>č'é?</u> -t |
| | 'to cut [with a blow]' | 'wood, tree, stick' | 'to chop trees down' |
| | hoy | ha? | hóoy= <u>a?</u> -t |
| | 'to dilute, dissolve' | 'water' | 'to irrigate' |

met' 'to purse /lips/'	čič 'mouth'	mée?= <u>čič</u> -t 'to grimace'
muč' 'to close /eyes/'	ʔič 'face, eye'	múuč'= <u>ʔič</u> -t 'to scowl'
tuč' 'to raise over one's head'	kàal 'neck, throat'	túuč'= <u>kàal</u> -t 'to crane neck'
wek 'to spill, shed'	haʔ 'water'	wéek= <u>háʔa</u> -t 'to throw water'

Contextual examples of five of them appear below:

- (85a) kóʔoš hóoy=aʔ-tik le pak'loʔ
'let's go sprinkle that garden!' (V. Bricker et al. 1998:112)
- (85b) t u mée?=čič-t(i)ken
'he is grimacing at me' (V. Bricker et al. 1998:184)
- (85c) k u túuč'=kàal-tiken
'he cranes his neck at me' (elicitation notes July 1979)
- (85d) u kiik h pèedréeʔ t u múuč'=ʔič-ten
'Peter's older sister, she scowled at me' (V. Bricker et al. 1998:187)
- (85e) táan in č'ak=čēʔe-tik in kòol
'I am clearing my field [of trees]' (V. Bricker et al. 1998:79)

The example of hóoy=aʔ-tik in (85a) closely parallels the example of hoy=a-tik in (83a) in the sense that haa (phonetic [haʔ]) 'water' is reduced to a (phonetic [aʔ]) after hoy (phonetic [hóoy]) in both Colonial and Modern Yucatec. The laryngeal "h" does not disappear after the velar stop in wek=háʔa-t in Modern Yucatec (this compound does not appear in the Calepino de Motul).

Although not usually regarded as examples of "noun incorporation," in which the direct object is placed directly after the verbal root in the transitive stem, nouns may also appear before the verb in compounds. This can be documented with the relational noun, et 'equal, same; with' in the following transitive compounds:

- (86)
- | Root | Gloss | Compound | Gloss |
|------|----------------------------------|------------------|--|
| kax | to tie up, bind, bandage [wound] | <u>et</u> =kax-t | to tie, bind, stick |
| kex | to change, exchange, trade | <u>et</u> =kex-t | to barter, exchange one object for an object of the same kind and in the same amount |
| moc | to knot, tie in knot | <u>et</u> =moc-t | to knot together |
| mol | to gather, collect | <u>et</u> =mol-t | to join or gather together |

pat	to form with hands, shape, mold	<u>et</u> =pat-t	to compare, equalize, match, assimilate
ppiz	to measure, weigh	<u>et</u> =ppiz-t	to compare, measure together

The Calepino de Motul contains contextual examples of three of these transitive compounds with -et:

- (87a) vet=kex-tah in tzimin ti Juan
'I exchanged my horse for John's' (Ciudad Real 1600?: fol. 168r)
- (87b) et=kax-te y etel
'tie them together!' (Ciudad Real 1600?: fol. 168r)
- (87c) ma au et=pat-ticen t in yum
'don't compare me with my father!' (Ciudad Real 1600?: fol. 169r)

The Hocaba dictionary contains one example of such a compound with the cognate of et in Modern Yucatec: ?éet=k'ab'-t 'to share, divide evenly' (from ?éet 'equal, same' and k'ab' 'hand, arm, lower forearm') (V. Bricker et al. 1998:9, 140).

5.2. ADJECTIVE INCORPORATION. Adjectives usually preceded the verb when they were incorporated into transitive stems in Colonial Yucatec:

(88)	Adjectival Root	Transitive Root	Compound
	<u>chuy</u> 'slowly, little by little'	<u>con</u> 'to sell'	<u>chuy</u> =con-t 'to sell in remote, distant, or out-of-the way places because it is not known to whom the goods belong'
	litz 'superficial'	con 'to sell'	<u>litz</u> =con-t 'to sell short'
	mux 'all'	con 'to sell'	<u>mux</u> =con-t 'to sell off'
	hay 'superficially'	muc 'to bury, hide, conceal'	<u>hay</u> =muc-t 'to bury superficially'
	kep 'uneven'	tñox 'to share, distribute'	<u>kep</u> =tñox-(t) 'to distribute unequally'
	uac 'excessive'	con 'to sell'	<u>uac</u> =con-t 'to overcharge'

The examples in (88) are illustrated in context below:

- (89a) v chuy=con-tah y ocol tzimin Juan
'John sold his horse in a distant place' (Ciudad Real 1600?: fol. 159v)

- (89b) ma a litz=con-tic v bal a ba
'don't sell your possessions short!' (Ciudad Real 1600?: fol. 267v)
- (89c) v mux=con-tah v bal v ba
'he sold all his possessions' (Ciudad Real 1600?: fol. 314r)
- (89d) ma a hay=muc-ticex cimen
'don't bury the dead person superficially [in a shallow grave]!' (Ciudad Real 1600?: fol. 174v)
- (89e) ma a kep=tħox-tic hanal
'don't distribute the food unequally!' (Ciudad Real 1600?: fol. 245r)
- (89f) in vac=con-tah in tzimin
'I sold my horse for more than it was worth' (Ciudad Real 1600?: fol. 437v)

The adjective, káan 'strong,' is incorporated in three transitive stems in Modern Yucatec:

(90) Transitive			
Root	Gloss	Compound	Gloss
lap'	to grasp, seize, clutch	<u>k'áan</u> =lap'-t	to seize firmly /arm/
mač	to grasp, seize	<u>k'áan</u> =mač-t	to grasp firmly
yač'	to flatten, smash, crush	<u>k'áan</u> =yá?ač'-t	to crumple

Here, as in Colonial Yucatec, the adjective is the first root in the compound. Three other examples of such compounding, with different adjectival and transitive roots, appear below:

(91) Adjectival		Transitive	
Root		Root	Compound
k'úuš		?il	<u>k'uš</u> =il-t
'angry, hateful, raucous, abhorrent'		'to see'	'to make angry'
hóol		mak'	<u>hóol</u> =máak'-t
'all'		'to lick, eat without chewing'	'to eat rapidly with hands [without tortillas]'
tikin		muk	<u>tikin</u> =muk-t
'dry'		'to bury'	'to plant at end of dry season [a few days before first rains]'

Only two contextual examples of adjectival incorporation appear in the Hocaba dictionary of Modern Yucatec:

- (92a) b'á?aš t u k'uš=il-tah
'what made him angry?' (V. Bricker et al. 1998:160)
- (92b) táan in čan=čal-ik in koh
'I am brushing my teeth a little [euphemism for drinking beer]' (V. Bricker et al. 1998:63)

5.3. TRANSITIVE COMPOUNDS WITH TWO TRANSITIVE ROOTS. Some transitive compounds in Colonial Yucatec contained two verbal roots. The one that appeared first in the stem often modified the verb that followed it, behaving in this respect like an incorporated adjectival root:

(93)	Transitive Root (1)	Transitive Root (2)	Compound
	<u>biɔ</u> 'to taper /wood/'	<u>haa</u> 'to scrape, grind, file, sharpen, brush, polish /wood/, smooth'	<u>biɔ=haa-t</u> 'to sharpen point of needle or punch'
	<u>buh</u> 'to cut, split apart /wood/'	<u>haɔ</u> 'to whip'	<u>b'uh=haɔ-t</u> 'to cut, injure'
	<u>chul</u> 'to wipe /plate/; dust'	<u>choo</u> 'to scrub, rub, wipe, polish erase'	<u>chul=choo-t</u> 'to wipe with cloth /plate, container/'
	<u>chot</u> 'to wring /clothes/'	<u>yaɔ</u> 'to squeeze, wring /laundry/'	<u>chot=yaɔ-t</u> 'to wring out'
	<u>hel</u> 'to change /occupation, clothes/, exchange, return, recompense'	<u>cuch</u> 'to carry on back or from tumpline'	<u>hel=cuch-t</u> 'to move'
	<u>kay</u> 'to sing (humans), warble, trill (birds, cicadas)'	<u>con</u> 'to sell'	<u>kay=con-t</u> 'to auction'

The use of these compounds in context is shown below:

- (94a) v buh=haɔ-tah in pol Ju.^o
'John cut my head' (Ciudad Real 1600?: fol. 57r)
- (94b) biɔ=haa-te v nij puɔ
'sharpen the point of the needle!' (Ciudad Real 1600?: fol. 53r)
- (94c) chul=choo-te y it y etel v pach platu ti nok
'wipe the base and the surface of the plate with a cloth!' (Ciudad Real 1600?: fol. 148v)
- (94d) chot=yaɔ-te a ppo=nok
'wring out your laundry!' (Ciudad Real 1600?: fol. 158r)

- (94e) hel=cuch-te a cab
'move your beehives!' (Ciudad Real 1600?: fol. 182v)
- (94f) v kaay=con-tah v çuyem
'he auctioned his cape' (Ciudad Real 1600?: fol. 234v)

The compounding of two transitive roots also occurs in Modern Yucatec:

(95)	Transitive Root (1)	Transitive Root (2)	Compound
	<u>b'ah</u> 'to nail'	<u>lah</u> 'to slap'	<u>b'áah</u> =lah-t 'to slap hard'
	<u>kip</u> 'to slip, slide, graze (bullet)'	<u>ʔil</u> 'to see'	<u>š kíp</u> =ʔil-t 'to glimpse'
	<u>lem</u> 'to insert, sink'	<u>č'in</u> 'to throw, hurl'	<u>léem</u> =č'in-t 'to shove'
	<u>šok</u> 'to count, read, study'	<u>čuy</u> 'to sew'	<u>šok</u> =čuy-t 'to embroider [cross-stitch]'
	<u>šot</u> 'to cut, slice'	<u>č'ak</u> 'to cut (with a blow), axe'	<u>šóot</u> =č'ak-t 'to chop off with a single stroke'

The compound that refers to cross-stitch embroidery combines the root, čuy 'to sew,' with the root, šok, one of whose meanings is 'to count,' perhaps in imitation of the Spanish term for cross-stitch embroidery, which is "hilo contado," whose literal translation is 'counted thread' in English!

The only contextual example of such compounds in the Hocaba dictionary of Modern Yucatec appears below:

- (96) čéen t in š kíp=ʔil-tah
'I just glimpsed it' (V. Bricker et al. 1998:129)

5.4. DIALECTAL VARIATION IN THE FORMATION OF COMPOUNDS IN THE CALEPINO DE MOTUL. All the examples of transitive compounds cited in **5.1.-5.3.** above are suffixed by -t. However, the Calepino de Motul lists alternative spellings of four compounds without this suffix and illustrates them in minimal pairs of contextual examples, thereby indicating that the variation was intentional.

The transitive compounds in the following examples lack the suffix, -t:

- (97a) v mac=pach_en ah ocolob
'the thieves punisheded me [for their crimes]' (Ciudad Real 1600?: fol. 283v)
- (97b) ma a kep=tħox_ic hanal
'don't distribute the food unequally!' (Ciudad Real 1600?: fol. 245r)

(97c) in vac=con_ah in tzimin ti Juan
 'I sold my horse for more than it was worth to John' (Ciudad Real 1600?: fol. 437v)

(97d) vet=kex_ah in tzimin ti Juan
 'I exchanged my horse for John's' (Ciudad Real 1600?: fol. 168r)

The example in (97a) forms a minimal pair with the example in (83b), where v mac=pach-tāhen contrasts with v mac=pach_en (the -ah suffix is also dropped in this example, an omission that also occurs in fast speech in Modern Yucatec). The example in (97b) can be paired with the example in (89e), where a kep=tōx-tic contrasts with a kep=tōx-ic. Another minimal pair contrasts in vac=con-tāh in (89f) with in vac=con_ah in (97c). The fourth minimal pair contrasts vet=kex-tāh in (87a) with vet=kex_ah in (97d).

The explicit nature of these minimal pairs suggests that they represented genuine alternatives in Colonial Yucatec. I have not encountered such variation in Modern Yucatec.

6. TRANSITIVE PHRASES

Folio 284r of the Calepino de Motul (Ciudad Real 1600?) contains a minimal pair of contextual examples based on the transitive root, mac 'to cover, enclose,' and the verbal noun, tñan 'word, language, speech,' that highlights the differences between transitive phrases and compounds in Colonial Yucatec:

(98a) v macah in tñan tupil
 'the constable blocked my words [so that I would not complain]'

(98b) v mac=tñant-ahen tupil
 'the constable blocked my words (literally, word=blocked me [so that I would not complain])'

The transitive phrase in (98a) differs from the transitive compound in (98b) in two respects: (1) the perfective aspectual suffix, -ah, is attached to the verb root in (98a), instead of following the noun and the transitivizing suffix as in (98b); (2) the noun that serves as the direct object of the verb is not part of the verb stem in (98a) and takes a clitic pronoun, in 'my,' in that example, which is replaced by the pronominal suffix -en 'me,' in (98b).

In the following minimal pair, which is based on the transitive root, pak 'to plant, paste, solder, varnish,' and the noun (u)ich 'eye, sight, face,' the imperfective suffix, -ic, is the one that directly follows pak in the transitive phrase (99a) and the transitivizing suffix after ich in the corresponding compound (99b):

(99a) ma a pakic v uich Juan
 'don't slap John's face!' (Ciudad Real 1600?: fol. 365r)

(99b) ma a pak=icht-ic Juan
 'don't face=slap John!' (Ciudad Real 1600?: fol. 365r)

The clitic pronoun is v 'his' in (99a) and is replaced by the pronominal suffix -Ø (no suffix) 'him' in (99b).

Several additional contextual examples of transitive phrases are given below:

(100a) bin in katab v chij
 'I will ask him about it' (Ciudad Real 1600?: fol. 240r)

- (100b) ma a čhīnīc a tħān y okol a lak
 'don't slander your neighbor!' (Ciudad Real 1600?: fol. 157r)
- (100c) v tzutzah bin v hoch Juan
 'they say that John defended himself from the blame that had been cast on him' (Ciudad Real 1600?: fol. 121v)
- (100d) v nacah vol čhahuc
 'fruit bored me' (Ciudad Real 1600?: fol. 316v)

In general, then, transitive roots were inflected for aspect in transitive phrases in Colonial Yucatec, and direct objects were usually inflected with clitic pronouns. These characteristics distinguished them from transitive compounds.

The same is true of the relationship between transitive phrases and compounds in Modern Yucatec, as the following contextual examples of transitive phrases imply:

- (101a) táan uy īlīk u nòok
 'she is menstruating [literally, she is seeing her clothes]' (V. Bricker et al. 1998:12)
- (101b) k u čak'īk aw ič le k'īino?
 'that sun makes you squint' (V. Bricker et al. 1998:62)
- (101c) le šī?ipalo? táan u čak'īk uy ič tī? in kīik
 'that boy is winking at my older sister' (V. Bricker et al. 1998:62)
- (101d) táan in čalik in koh
 'I am brushing my teeth' (V. Bricker et al. 1998:63)
- (101e) hwàane? t u hič'ah b'in u kàal
 John, they say that he hanged himself' (V. Bricker et al. 1998:105)
- (101f) t u hit'ah u k'ab'
 'he clasped his hands together [sign of death]' (V. Bricker et al. 1998:107)

7. SUMMARY OF CHANGES IN TRANSITIVE VERBS THROUGH TIME

Significant changes were already underway in the derivation of passive stems from transitive roots during the second half of the sixteenth century, when the relatively simple treatment of passives inherited from Proto-Yucatecan was undergoing replacement by the more complicated system of passivization documented in Modern Yucatec today. The changes were not limited to passives derived from root transitives, but ultimately triggered changes in passives based on transitives derived from other form classes during the centuries that followed as well.

Another kind of change characterizes the derivation of transitive stems from adjectives, particles, positionals, and affects with -cin and -cun. Already in the Calepino de Motul, these derivational suffixes were

sometimes followed by another transitivizing suffix, -t, which came into free variation with -s by the middle of the nineteenth century, which is the pattern evident today in Modern Yucatec.

NOTES

1. The examples in (7j–l) were elicited in class from Eleuterio Poʔot Yah.
2. The vowel, /a/, has been inserted between the root-final glottal stop in haʔ and the -n suffix to break up the consonant cluster, /ʔn/.
3. The epenthetic vowel is schwa in Itsaj, but [a] in Mopan (Hofling 2011:19; Hofling and Tesucún 1997:16).
4. Final [l] has become [r] in Lacandon, resulting in the -áʔar imperfective suffix of passivized causatives and other derived transitives.
5. Folio 382v of the Calepino de Motul lists both puzbal and puzabal as the passive stem of puz-t ‘to wipe with a cloth,’ suggesting that this change was still in progress during the late sixteenth century.
6. Itsaj and Mopan have retained the passive inherited from Proto-Yucatecan for transitives derived from nouns. The transitivizing suffix -t appears only in the active voice, which means that there is no triconsonantal cluster and therefore no epenthetic vowel in passive expressions based on transitives derived from nouns. The imperfective passive stem of mentik ‘to make, do’ is menbel (as in Proto-Yucatecan) in these languages, not mentabal (as in Colonial Yucatec), nor mèentáʔal (as in Modern Yucatec).
7. Modern Yucatec has a few examples of the use of -t for deriving transitives from adjectival roots. This is the case with sal-t ‘to aerate, ventilate, winnow,’ which is derived from the adjective, sáal ‘light [not heavy],’ and the antipassive stem of this verb is saltah, not sáal (V. Bricker et al. 1998:242), contrasting with the antipassive stems of transitives derived from nouns.
8. Itsaj and Mopan have retained the inherited passive for all root transitives, including the ones that had medial laryngeals in early Colonial times. Nevertheless, the active transitive stems of these verbs now have the -t suffix that is used for deriving transitive verbs from nouns (Hofling 2011 *passim*, Hofling and Tesucún 1997 *passim*). Cognates of the same verbs in Modern Yucatec did not undergo this innovation, even though their passive stems now have the same suffixes as those of derived transitives.
9. Reading *chibal* as *cḥibal* and *lun* as *ḷun*.
10. Reading *ukik* as *uḳik*.
11. According to folio 443v of the Calepino de Motul, *utzcintah* had the same meaning as *utzcinah*, but was not used much (Ciudad Real 1600?).
12. The earliest reference to *kah=ol* as a defective transitive compound is on page 164 of the nineteenth-century dictionary published by Juan Pío Pérez in 1866–1877. No Colonial dictionary or grammar lists this compound, nor are there any examples of it in my Colonial database consisting of notarial documents and Books of Chilam Balam.
13. This is a slightly revised version of section 2.2.1.3. in V. Bricker et al. (1998:334–335).

CHAPTER 8

NOUNS

The principal differences between root and derived nouns in Colonial and Modern Yucatec are semantic, not formal. Nominal roots include the well-defined domains of body-part and kinship terminology, numeral classifiers (see Chapter 9), and the names of many animals and plants. Verbal nouns are derived from verb roots and have an active meaning that nominal roots lack. Abstract nouns are derived from adjectival roots. Agentive nouns can be derived from several kinds of roots, including nominal ones, and instrumental nouns are primarily derived from root transitives. And relational nouns can be derived from any form class.

1. NOMINAL ROOTS

All nominal roots share the possibility of inflection for possession, with clitic pronouns and a limited number of suffixes or internal changes in a root vowel, or with a noun specifier.

1.1. INFLECTION FOR POSSESSION. Nominal roots can belong to one or more of the ten inflectional classes listed below:

- | | | |
|-----|-----|---|
| (1) | n1 | ownership possession with -Ø. |
| | n2 | ownership possession with -iĭ. |
| | n3 | associative possession with -iĭ. |
| | n4 | inalienable possession with -eĭ. |
| | n5 | ownership possession with -aĭ. |
| | n6 | ownership possession with -Vĭ (vowel in suffix echoes vowel in root). |
| | n7 | ownership possession indicated by C̣VC stem. |
| | n8 | ownership possession indicated by C̣VCVC stem. |
| | n9 | possession only with noun specifier (<u>ʔàalak'</u> or <u>ʔóʔoč</u>). |
| | n10 | never possessed. |

The first two classes include the majority of root nouns. In (2a), *boch* 'toque, hat' took no suffix (-Ø) when it was possessed, whereas in (2b–c), *paal* 'young boy or girl; servant' took -iĭ when it was possessed in Colonial Yucatec:

- (2a) v katah v boch ten vahi ten chaic
'she asked me for her toque as if it was I who had taken it' (Ciudad Real 1600?: fol. 438v)

- (2b) ho=uen in paalil
'my child is five months old' (Ciudad Real 1600?: fol. 208v)

- (2c) lic bin a həcic a palil t u men u tuz
'they say that you whip your boy because he lies' (Ciudad Real 1600?: fol. 267c)

The kind of possession indicated by -Ø and -il in these examples is ownership: the woman owned the toque that had been taken from her, and the child and boy or servant belonged to the possessor. It contrasts with the kind of possession indicated by -il in n3, which refers to the association of an object with the possessor, as can be seen in the contrast in meaning between u nok and u nokil (from nok 'clothes, cloth') in (3a–b):

- (3a) v ɟiah v nok ti hun tul ah num=ya
'he donated his clothes to a pauper' (Ciudad Real 1600?: 103v)

- (3b) v nokil ɟic
'shaving cloths' (Ciudad Real 1600?: 130r)

The clothes mentioned in (3a) belonged to the person who donated them to a pauper, whereas the cloths mentioned in (3b) were ones used for shaving but not owned by the user.

The noun, ɟ'onó?ot 'cenote, sinkhole,' also employs -Ø and -il in a similar contrast between ownership and associative possession in Modern Yucatec:

- (4a) u ɟ'onó?ot h wàan
'John's sinkhole [i.e., the sinkhole owned by John]' (V. Bricker et al. 1998:54)

- (4b) u ɟ'onó?otil hùuh
'the iguana's sinkhole [i.e., the sinkhole inhabited by the iguana]' (V. Bricker et al. 1998:54)

A few nouns take -al instead of -il when inflected for possession (n5), as was the case with eb 'step, stair, rung, staircase' in Colonial Yucatec:

- (5a) he y almah=tħanil Diose lay y ebal licil naacal ti caan
'the commandments of God serve as the staircase for rising to heaven' (Ciudad Real 1600?: fol. 267v)

The same is true of p'íiš 'size' in Modern Yucatec:

- (5b) la? b'uk u p'íišal le pàalo?
'look at the size of that child!' (V. Bricker et al. 1998:230)

In another case in Modern Yucatec, the use of -Ø for ownership possession contrasts with the use of -al for associative possession:

- (6a) ɟ'a? aw iik'
'breathe! [literally, take your air:]' (V. Bricker et al. 1998:12)

- (6b) uy iik'al čik'in
'the west wind [literally, the wind of the west]' (V. Bricker et al. 1998:12)

The third-person clitic pronoun, *u*, can be translated as "the" in (5b) and (6b), and *y* has the same function in (5a). There is no other way of expressing the definite article in Colonial and Modern Yucatec.

Sometimes the vowel of the inflectional suffix echoes the vowel of the root (n6), as in the following examples based on *čheen* 'well, cistern, sinkhole containing water' and *ku* 'God':

- (7a) *ox=çap u tabil in čhenel*
'the depth of my well is three fathoms' (Ciudad Real 1600?: fol. 98v)
- (7b) *pazex a čhenel*
'clean out your well!' (Ciudad Real 1600?: fol. 357r)
- (7c) *tanlex a ba t u beel a yumil a kuul*
'dress yourself to receive your Lord, your God' (Ciudad Real 1600?: fol. 413r)

The suffix *-el* (n4) marks possession in nouns that refer to parts of the body, such as the liver and the blood in one's veins, that are not under the individual's control (see 1.2.1. below).

Of the remaining four kinds of nominal possession in (1) that have been attested in the Hocaba dialect of Modern Yucatec, only n9 and n10 can be documented in Colonial Yucatec. In a few monosyllabic noun roots, the neutral or high tone changes to low tone when they are inflected for possession in Modern Yucatec (n7), as in V. Bricker et al. (1998:360):

(8)	čúuk	'charcoal'	in čùuk	'my charcoal'
	č'il	'corncrib, granary'	in č'ilil	'my corncrib, granary'
	č'óoy	'bucket'	in č'òoy	'my bucket'
	káat	'large, wide-mouthed jar for cooking'	in kàat	'my large, wide-mouthed jar for cooking'
	kay	'fish'	in kàay	'my fish'
	kib'	'candle, wax'	in klib'	'my candle, wax'
	k'áan	'hammock'	in k'àan	'my hammock'
	k'úuɟ	'tobacco'	in k'ùuɟ	'my tobacco'
	lak	'clay cup'	in làak	'my clay cup'
	šiiw	'herb, plant'	in šiiw	'my herb, plant'

Although there is some evidence of both tones in Colonial Yucatec, it is not marked consistently enough for such a pattern to be detected. Similar changes occur in disyllabic noun roots when they are possessed in Modern Yucatec (n8), as in V. Bricker et al. (1998:361):

(9)	č'iimin	'horse'	in č'iimin	'my horse'
	č'uyub'	'hanging device'	in č'ùuyub'	'my hanging device'
	č'ililb'	'twig'	in č'ililib'	'my twig'
	kisin	'devil, demon'	in kisin	'my devil, demon'
	k'éewel	'skin'	in k'èewel	'my skin'

k'eyem	'posol'	in k'èeyem	'my posol'
k'óob'en	'kitchen'	in k'òob'en	'my kitchen'
k'omoh	'stink, stench'	in k'òomoh	'my stink, stench'
k'éek'en	'pig'	in k'èek'en	'my pig'

But once again, the orthography used for Colonial Yucatec does not permit identification of such a pattern, if indeed it already existed then.

The Calepino de Motul contains a few examples of the noun specifiers, *alak* (with nouns referring to domesticated animals) and *och* (with nouns referring to food), that were used in possessive constructions (n9). The ones mentioned with *alak* concerned pigs and dogs:

- (10a) cimi valak keken
'my pig died' (Ciudad Real 1600?: fol. 34r)
- (10b) hutul v cibah y al valak pek
'the puppies of my pet dog were born' (Ciudad Real 1600?: fol. 202v)

A document from Tekanto dated to 1674 uses *alak* in a possessive construction with domesticated cows and horses:

- (10c) ocbal vy alakob vacax y etel tziminob hecex
'their cows are on the point of entering with those horses' (TK674-015A-B)

The Modern cognate of *alak* is *?àalak'*, which is often abbreviated as *?ala?*, as in the following examples from V. Bricker et al. (1998:361):

- | | | | | |
|------|--------|---------------|-----------------|------------------|
| (11) | ?áak | 'turtle' | inw ala? ?áak | 'my turtle' |
| | kay | 'fish' | inw ala? kay | 'my fish' |
| | h m'ís | 'cat' | inw ala? h m'ís | 'my cat' |
| | mukuy | 'turtle dove' | inw ala? mukuy | 'my turtle dove' |
| | pèek' | 'dog' | inw ala? pèek' | 'my dog' |
| | kéeh | 'deer' | inw ala? kéeh | 'my [pet] deer' |

The other noun specifier, *och*, that refers to food or sustenance, co-occurs with *ixim* 'maize, corn' most frequently in the Calepino de Motul, but it also appears with the words for beans (*buul*) and an edible bird (*ch'ich*) in the following examples:

- (12a) v cuch y och ch'ich
'the payment for his bird [that will be eaten]' (Ciudad Real 1600?: fol. 86r)
- (12b) tzami voch ixim
'my corn ran out' (Ciudad Real 1600?: fol. 116r)
- (12c) kaa v cah voch ixim voch buul
'I have an abundance of corn and beans left' (Ciudad Real 1600?: fol. 231r)

The Modern cognate of och is ʔóʔoč, as in the following examples from V. Bricker et al. (1998:361):

(13)	ʔab'al	'plum'	inw óʔoč ʔab'al	'my plum'
	b'úʔul	'beans'	inw óʔoč b'úʔul	'my beans'
	kay	'fish'	inw óʔoč kay	'my fish'
	kéeh	'deer'	inw óʔoč kéeh	'my venison'
	k'éek'en	'pig'	inw óʔoč k'éek'en	'my pork'
	saʔ	'gruel'	inw óʔoč saʔ	'my gruel'
	wàah	'tortilla'	inw óʔoč wàah	'my tortilla'

Note that some nouns can co-occur with both noun specifiers, depending on whether the animal in question is regarded as a pet (inw alaʔ kéeh 'my [pet] deer') or food (inw ʔóʔoč kéeh 'my venison').

The nouns that are never possessed can only be identified by the designation, *sin denotar cuyo* 'without denoting whose,' in the glosses in the Calepino de Motul. They are most evident in the glosses for kinship terms, which are discussed in 1.2.2. below.

1.2. OTHER CONSIDERATIONS. Two semantic classes of nouns, body-part terms and kinship terms, illustrate additional complexities of inflection for possession in Colonial and Modern Yucatec. So also do nouns with reflexive and reciprocal functions.

1.2.1. BODY-PART TERMS. Unlike other Mayan languages, Colonial and Modern Yucatec distinguish terms for parts of the body according to whether they are controlled by will. Limbs like arms and legs can be moved voluntarily, whereas the movement of blood in one's veins is not under our control. This distinction is marked in possessive constructions by no suffix (n1) in the first case and -el (n4) in the second. Body-part nouns that co-occur with -el are called "inalienable" because they are not subject to human (or animal) control.

In (14a–d) appear some examples of the possession of the inalienable nouns, baac 'bone, horn (of deer, cow),' com 'brains (human, animal), kik 'blood,' and tanam 'liver,' in the Calepino de Motul:

- (14a) manaan y ala in bacel t u haʔ in xiblib
'not a single [healthy] bone of mine is left as a result of the whipping by my husband' (Ciudad Real 1600?: fol. 244v)
- (14b) ma chan in comel in nuctei
'my brain is not sufficient to understand it' (Ciudad Real 1600?: fol. 333r)
- (14c) v keluctah v kikel c ah lohil
'Our Savior sweated his blood' (Ciudad Real 1600?: fol. 244v)
- (14d) ya v cah in tanamel
'my liver aches' (Ciudad Real 1600?: fol. 244v)

They contrast with kab 'hand, arm, lower forearm, finger,' oc 'foot, leg,' and pol 'head, hair' that take no suffix (-Ø) when inflected for possession:

- (15a) çulex a kab ti haa
'thrust your hands in water' (Ciudad Real 1600?: fol. 111r)

- (15b) v pakah v bace*l* in kab Juan
'John set the bone of my arm' (Ciudad Real 1600?: fol. 364r)
- (15c) ecaan va au oc ti luum
'are your feet planted firmly in the ground?' (Ciudad Real 1600?: fol. 161v)
- (15d) tzap*l*ac v yail voc t u men *ɔ*ac t in *ɔ*aachi
'the pain in my foot was devoured by the medicine I applied to it' (Ciudad Real 1600?: fol. 116r)
- (15e) lac tun v *ɔ*ocol v pocic y ocob ca hoppi v tzeec
'once he finishes washing his feet, then he began to preach' (Ciudad Real 1600?: fol. 258r)
- (15f) v cohah in pol t u nak pak
'he beat my head against the wall' (Ciudad Real 1600?: fol. 78v)

The nominal phrase in (15b) contains two body-part terms inflected for possession, one with -el (v bace*l*) and the other with -Ø (in kab). Although I can move my hand (in kab) voluntarily, my arm does not have the same power over its bone (v bace*l*).

The same contrast in possessive suffixes occurs in a nominal phrase in a pun on the name of the town of Buctzotz in the Book of Chilam Balam of Chumayel:

- (16) ca u kuchob buctzotz
'then they arrived at Buctzotz;
- ti u bucinahob u tzotzel v pollobi
there they dressed their hair on their heads;
- buctzotz v kaba vaye c u t*h*anob
"Buctzotz is the name of this place" they say' (Gordon 1913:5)

Here the inalienable noun (tzotz 'hair') is possessed with -el, and the noun that refers to a part of the body that can be moved voluntarily (pol 'head') takes no suffix when possessed. When hair is attached to the head, it is the owner of the head who controls it (not the head itself).

Modern Yucatec has retained the distinction between the two kinds of body-part terms. It uses -el for inflecting inalienable nouns for possession (n4) and -Ø for inflecting nouns that refer to body parts that can be moved voluntarily (n1). The following examples illustrate the use of -el with b'àak 'bone' and k'í'ik' 'blood':

- (17a) yan ?òorah k inw ú?uyik b'ey k u kačk'ahal u b'àake*l* im pàače?
'sometimes it feels like the bones in my back will snap' (Blair and Vermont-Salas 1967:746)
- (17b) yá?ab' wá a k'í'ik'e*l* hóok' táan a tàal waye?
'did much of your blood come out while you were coming here?' (Blair and Vermont-Salas 1967:751)

In (18a–b), appear some examples of the use of -Ø for inflecting ?òok 'foot' and pòol 'head' for possession in Modern Yucatec:

- (18a) yah inw òok
'my foot hurts' (V. Bricker et al. 1998:16)
- (18b) táan u k'íʔinam im pòol
'my head is throbbing [from wound]' (V. Bricker et al. 1998:219)

A third example, based on pàaĉ 'back,' occurs in the possessive nominal phrase in (17a).

Inalienable nouns occasionally appear with -Ø when they are inflected for possession, as when blood (k'íʔik') is removed from the body and placed in a test tube (compare [19b] with [19a]):

- (19a) u k'íʔik'el h wàan
'John's blood [in his veins]' (V. Bricker et al. 1998:152)
- (19b) u k'íʔik'_ h wàan
'John's blood [in test tube]' (V. Bricker et al. 1998:152)

1.2.2. KINSHIP TERMS. Twenty-three noun roots that refer to kinship relations are listed as entries in the Calepino de Motul, and all of them took no suffix (-Ø) when inflected for possession (n1), as the following examples demonstrate:

- (20a) paayi v beel t u men v sucun
'he was guided by his older brother' (Ciudad Real 1600?: fol. 360r)
- (20b) loten y etel viçin
'I and my younger brother were born together' (Ciudad Real 1600?: fol. 273r)
- (20c) in kamah v yaah ti in yum
'I contracted the illness from my father' (Ciudad Real 1600?: fol. 237v)
- (20d) maih v yumech va ma tan a tzeecte
'you would not be his father if you do not punish him' (Ciudad Real 1600?: fol. 288r)
- (20e) in mam batab y al vix cit
'my cousin is the leader, the son of my mother's sister' (Ciudad Real 1600?: fol. 292r)

Wills provided the most common context for mentioning kin terms in Colonial times, when people who owned substantial property specified how it should be distributed among their heirs. The following examples come from the will of Luis May, which was notarized on December 10, 1743:

- (21a) hun ac yn solar yan t u likin votoch lae
'one of my house plots that exists east of my home
- c in kubic ti yn mehen P.^o Antt.^o May
'I hand over to my son, Pedro Antonio May' (TK743K)
- (21b) hun ac yn matan solar ti Anjelina Mena vy atan Fran.^{co} Koh
'one of my house-plot gifts from Angelina Mena, the wife of Francisco Koh,

c in ɔaɪc ti ynv ix mehen Maria Anttonia May y v balob t u lalal
 'I bequeath to my daughter, Maria Antonia May, and all its contents (TK743K)

- (21c) hex kax lae ti yan t u likin multun ac bel ɔuma
 'and this forest here, it is there to the east of the mound opposite the road to ɔuma;

v matma yn na ti v mam y yn yum
 the gift of my mother from her maternal cousin and my father,

lic tun yn ɔaɪc ti yn mehen manuel may lae
 which I then bequeath to my son, this Manuel May' (TK743K)

Because the Colonial Maya had a system of double descent, kinship terms in the male line were different from those in the female line. In addition, men and women used different terms to refer to their children. Women referred to both sons and daughters as inu al or ual 'my child,' as was the case in (20e), where, because the cousin (mam) is a leader (batab), he must be the son of the speaker's aunt. The term used by men to refer to their children was mehen, but unlike the term used by women, its default meaning was 'son.' In referring to their daughters, men added the clitic particle, ix, to mehen, as in inv ix mehen 'my daughter.' That is why Luis May referred to his son as yn mehen in (21a) and to his daughter as ynv ix mehen in (21b).

The same explanation may account for the ix particle in vix cit 'my mother's sister' in (20e). Although cit is not listed as an entry in the Calepino de Motul, there is evidence that it represented an alternative to yum in referring to "father" (see below). The use of ix as a feminine gender clitic particle was not limited to kinship terms; it marked agentive nouns derived from several kinds of roots in Colonial Yucatec (see **2.1** below).

When the honorific suffix, -bil, was suffixed to a kinship term, it resulted in a noun that was never possessed (n10). The following kinship terms were listed as entries with -bil and the clarification, *sin denotar cuyo* 'without specifying whose,' in their glosses in the Calepino de Motul:

(22)	<u>-bil Noun</u>	<u>Gloss</u>
	icɪnbil	honored younger brother or sister
	mambil	honored first cousin
	mehenbil	man's honored son
	onelbil	honored consanguineal relative
	yumbil	honored father

The noun, citbil, is not mentioned in the Calepino, but it substituted for yumbil in the expression, Dios yumbil Dios mehenbil Dios Espiritu Santo 'God the Father, God the Son, God the Holy Spirit,' in documents during the seventeenth and eighteenth centuries, suggesting that it, too, meant 'father' and providing a rationale for the presence of ix in ix cit 'father's sister.'

The Calepino contains only one sentence illustrating the use of a kinship term with -bil:

- (23) ma vchac v ɕhaɪc v ba tan ba mambilob
 'it is not possible for honored first cousins to marry each other' (Ciudad Real 1600?: fol. 292r)

As time passed, and Spanish rule took hold, the bilateral kinship system of the conquerors gradually replaced the original double-descent system of the Maya of Yucatan, and Spanish kinship terms replaced

some of the Maya kinship terms. By the 1980s, when I was eliciting words for the Hocaba dictionary, only fourteen of the original twenty-three kinship terms were still known, and of them, four were no longer in common use. For example, yùum ‘father’ had largely been replaced by tàatah (from Nahuatl) and papah (from Spanish), mamah (from Spanish) had replaced na? ‘mother,’ and tyòoh ‘uncle’ (from Spanish *tío*) and tyàah ‘aunt’ (from Spanish *tía*) were the only collateral terms in the first ascending generation known in Hocaba. On the other hand, the original terms for relatives in Ego’s generation (sukú?un ‘older brother,’ kùik ‘older sister,’ ?iĩ?in ‘younger sibling,’ ?iĩčam ‘husband,’ ?atan ‘wife,’ and b’àal ‘brother-in-law’) were in common use during the 1980s. So also, were čiič ‘grandmother,’ ?áab’il ‘grandchild, great-nephew, great-niece,’ ?ilib’ ‘daughter-in-law,’ and há?an ‘son-in-law.’ They were inflected for possession with no suffix (-Ø), continuing the pattern that had characterized kinship terms during the Colonial period.

When the Spanish loans, papah ‘father’ and mamah ‘mother,’ are inflected for possession, the first vowel in the root is lengthened and acquires low tone: im pàapah ‘my father’ and in màamah ‘my mother,’ resulting in their classification as n8, instead of n1.

Only one kinship term has retained the honorific -bil suffix of Colonial Yucatec that marked them as n10: yùumb’iil ‘holy father’ (V. Bricker et al. 1998:319). Instead, -tzil (phonetic [-čil]) now has the same function as -bil did in Colonial Yucatec. Furthermore, -tzil already had that function in Colonial Yucatec. The Calepino de Motul classifies both mehen**bil** and mehent**z**il as nouns whose possessor cannot be specified (n10) and translates mehentzil as ‘man’s honored son [legitimate and beloved]; courteous son’ (Ciudad Real 1600?: fol. 303).

1.2.3. REFLEXIVE AND RECIPROCAL NOUNS. Colonial Yucatec had a noun, ba, glossed as ‘self,’ that functioned as a reflexive pronoun when it was inflected for possession:

- (24a) balex a ba ti ciçin
‘protect yourselves from the Devil!’ (Ciudad Real 1600?: fol. 44r)
- (24b) ma xana maix v nah vinic v bulez v ba ti keban
‘on the contrary, nor is it a good thing that the man drowns himself in sin’ (Ciudad Real 1600?: fol. 302v)

This noun was not limited to transitive contexts, but also occurred in nominal phrases:

- (25a) t a ba t a hunal
‘by yourself alone’ (Ciudad Real 1600?: fol. 419v)
- (25b) hun tul t u ba Dios ox tul t u ba v personasilob
‘a single God and three are his persons’ (Ciudad Real 1600?: fol. 427r)
- (25c) v čhaah v bal v ba
‘he recovered his possessions’ (Ciudad Real 1600?: fol. 150r)

Reciprocal expressions were formed by combining u ba with tan ba:

- (26a) a nupbeçah va vinicob vchebal v čhaicob v ba tan ba
‘did you unite the people so that they might marry each other?’ (Ciudad Real 1600?: fol. 339r)

- (26b) va ma tan v pak=tehal t u ba tan baob v kakil y etel ticin çuuce
 'if the fire is not combined with dry hay,
 ma uil tan y eleli
 it will not burn' (Ciudad Real 1600?: fol. 365v)
- (26c) yan ti y olob v mahal v ppatic v ba tan baob
 'they are resolved not to leave each other' (Ciudad Real 1600?: fol. 216r)
- (26d) v paclam=pactah v ba tan ba Juan y etel Pedro
 'John and Peter looked at each other' (Ciudad Real 1600?: fol. 356v)

The Modern cognate of ba is b'ah 'self' in Modern Yucatec:

- (27a) t in šot(ah) im b'ah
 'I cut myself' (V. Bricker et al. 1998:24)
- (27b) kiŋw ilik im b'ah
 'I see myself' (V. Bricker et al. 1998:12)

There are no u b'ah táan b'ah expressions in the Hocaba dictionary of Modern Yucatec, but the following example, in which táan has been incorporated in the transitive stem, may be a vestige of such expressions:

- (28) t u núup'=taant(ah) u b'a?ob'
 'they met each other' (V. Bricker et al. 1998:271)

2. DERIVED NOUNS

Several kinds of nouns could be derived from adjectival, verbal, and particle roots in Colonial Yucatec, as well as from nominal roots themselves. The major classes of such derivations were agentive, instrumental, abstract, verbal, and relational nouns.

2.1. AGENTIVE NOUNS. Although agentive nouns were, and still are, drawn from all the other form classes, root transitives represent the most common source of this derivational class. They were marked by two clitic particles in Colonial Yucatec: ah and ix. Although agentive nouns marked by ah could refer to both male and female actors, when it was paired with ix, it referred only to males, and ix referred to females. For example, ah chuy (< chuy 'to sew, embroider') could refer to both 'tailors and seamstresses' (Ciudad Real 1600?: fol. 148v), whereas ah kam (< kam 'to receive, respond') referred only to 'male inkeepers, hosts, and temporary manservants' and ix kam only to 'female inkeepers, hostesses, and temporary maidservants' (Ciudad Real 1600?: fol. 236v). On the other hand, ah kuch (< kuch 'to spin') referred only to 'female spinners' (Ciudad Real 1600?: fol. 252v) because only women engaged in spinning. In other words, agentive nouns derived from verbal roots that took ah as their clitic particle were not marked for gender, but those beginning with ix were marked for feminine gender.

The same was true of agentive nouns derived from adjectives. Thus, ah uijh (< uijh 'hungry') meant 'hungry person,' either a man or a woman, whereas ah pukuz (< pukuz 'pot-bellied') specified a 'pot-bellied

man' because ix pukuz referred to 'pot-bellied woman' (Ciudad Real 1600?: fol. 384r). The glosses of such pairs of terms were not always parallel. For example, ah çuc (< çuc 'tame, gentle') referred to a 'gentle man' and ix çuc to 'younger daughter,' even though its literal translation was 'gentle woman' (Ciudad Real 1600?: fols. 14r, 109r, 228r). Similarly, the Calepino de Motul glosses ah coo (< co 'crazy, foolish, insolent, boisterous, roguish, cunning, deceitful') as a 'bold, daring, intrepid, brave, courageous person' and ix coo as a 'whore; playful, jesting woman' (Ciudad Real 1600?: fols. 10r, 75v, 227v).

The same principle of female being the marked gender was true of agentive nouns derived from nominal roots:

(29)	<u>Masculine</u>	<u>Gloss</u>	<u>Feminine</u>	<u>Gloss</u>
	ah baac	little boy	ix baac	little girl
	ah bouat	prophet	ix bouat	prophetess
	ah haa	chocolate maker [male]	ix haa	chocolate maker [female]

However, the glosses of several agentive nouns derived from kinship terms seem counter-intuitive. In the following examples, ah 'male' co-occurs with both atan 'wife' and icham 'husband,' yielding ah atan 'married man' and ah icham 'married woman.' Even stranger is the combination of both ah and ix with mehen 'child': ah ix mehennal 'father who has children.' And the Calepino de Motul lists both ah ál and ix al as agentive nouns referring to women:

(30a) ah ál: woman who has given birth [while she is still in bed]; woman who has given birth many times; mare, cow

(30b) ix al: woman or animal who has given birth and has children

The second of these terms was still known in the Hocaba dialect during the 1980s as: š ʔaal 'woman who has given birth' (V. Bricker et al. 1998:4). Over time, ah was reduced to h and ix to x (phonetic [š]). Both gender particles appear with almost equal frequency in the Hocaba dictionary, but this may be an artifact of our elicitation procedure. ah was much more common than ix in agentive nouns in Colonial times.

When ah was combined with a surname, it designated membership in a lineage (e.g., ah chan 'member of the Chan lineage'). Similarly, when it co-occurred with the name of a town, it indicated residence in that town (e.g., ah cumkal 'resident of Conkal').

2.1.1. MARKING AGENTIVE NOUNS FOR OWNERSHIP WITH -NAL. The example of ah ix mehennal contains the -nal suffix that co-occurs with ca. thirty nominal roots and stems in agentive constructions, where it indicates ownership, as in the following examples:

(31)	<u>Agentive Noun</u>	<u>Gloss</u>
	ah al <u>nal</u>	woman who has children, mother
	ah atan <u>[n]al</u>	married man
	ah cab <u>nal</u>	beekeeper
	ah cah <u>nal</u>	resident of a town
	ah col <u>nal</u>	owner or foreman of cornfield or farm
	ah chenn <u>nal</u>	owner of sinkhole where cacao grows

ah icham <u>nal</u>	married woman
ah kak <u>nal</u>	someone with smallpox
ah kax <u>nal</u>	owner of forest
ah otoch <u>nal</u>	householder
ah ppentac <u>nal</u>	slave owner
ah ppoc <u>nal</u>	person with hat

In this list the noun for 'wife' (atan) was used to refer to a married man because he was the "owner" of his wife, and the noun for 'husband' (icham) was used to refer to a married woman because she was the "owner" of her husband.

Other examples of these agentive nouns, this time in context, appear in (32a–c) below:

- (32a) cen Di° Pox ah otochnal vay ti cah ʔaane
'I who am Diego Pox, a householder here in the town of ʔaan' (DZ587B-106A-B)
- (32b) ca yx t in payah Francisco Mex y etel Gaspar Mex ah kaxnal te ti lakine
'and then I summoned Francisco Mex and Gaspar Mex, the owner of the forest there in the east' (SB596A-014A-C)
- (32c) ti hun=molob al=mehenob chun=tʰanob y. Ju° Chan alcarde ordinario
'gathered there were the nobles, the elders, with Juan Chan, the ordinary magistrate
- ti cah Mani lae y. Fran° Cuy tinyente v nucil al=mehenob
in this town of Mani, with Francisco Cuy, deputy of the senior nobles,
- ah cahnalob vay t u cahal Mani lae
residents here in this town of Mani' (MA733E-504A-505D)

Of the eight agentive nouns with -nal (phonetic [-náal]) in the Hocaba dialect of Modern Yucatec, none of them is introduced by the Modern cognate of the clitic particle ah, and only four of them imply ownership (the noun in the fourth [wakaš 'cow'] is a Spanish loan [vacas 'cows']):

(33)	<u>Agentive Noun</u>	<u>Gloss</u>
	kahná <u>al</u>	inhabitant, resident
	kolná <u>al</u>	farmer
	ʔotočná <u>al</u>	owner of house
	wakašná <u>al</u>	cattleman

The others simply refer to the agent of an action:

(34)	<u>Agentive Noun</u>	<u>Gloss</u>
	č'isná <u>al</u>	copulator
	č'onná <u>al</u>	hunter
	lošná <u>al</u>	boxer
	poč'ná <u>al</u>	insulter

An example of the use of kahnáal in Hocaba appears in (35) below:

- (35) le máakóʔob' kahnáalóʔob' wayaʔ lóotil kàahilóʔob'
 'the people who are residents here are from various countries' (V. Bricker et al. 1998:120)

2.1.2. AGENTIVES MARKED BY -YAH. The Calepino de Motul lists a few agentive nouns that are marked by both -yah and the clitic particle ah:

(36)	<u>Agentive Noun</u>	<u>Gloss</u>
	ah cooyah	noisy, lively, merry, rebellious, mischievous person
	ah tzucyah	lewd, lascivious person
	ah ɔutyah	barterer, money changer; publican
	ah hobonyah	painter
	ah hubyah	agitator
	ah kinyah	sorcerer, fortune teller
	ah kobenyah	cook, chef
	ah tokyah	medical phlebotomist

Two agentive nouns in this list are derived from adjectival roots (coo 'crazy, foolish, insolent, boisterous, roguish, cunning, deceitful'; ɔut 'avaricious, stingy, niggardly'), two from transitive roots (hub 'to disturb, disarrange, agitate'; tok 'to puncture, let blood'), and three from nominal roots or stems (hobon 'color, pigment, paint'; kin 'day, sun, time'; koben 'hearthstones, kitchen'). (Alternatively, ah tokyah, may be the agentive form of the verbal noun, tokyah 'lancet'). The ultimate source of ah tzucyah is unknown, but it may be derived from the transitive stem, tzucyah 'to speak, scold with vulgar words.' The -yah agentive suffix does not occur in the dialect of Modern Yucatec spoken in Hocaba.

2.2. INSTRUMENTAL NOUNS. Most of the instrumental nouns listed as entries in the Calepino de Motul were derived from transitive roots, of which the following are examples:

(37)	<u>Transitive</u>	<u>Gloss</u>	<u>Instrumental</u>	<u>Gloss</u>
	bah	to nail with hammer; chisel	bahab	hammer, chisel
	choo	to scrub, rub, wipe, polish	choob	cleaner, towel
	haɔ	to whip, clear /bush/	haɔab	whip, knife, sword
	hax	to bore, drill	haxab	drill, borer
	hepp	to tighten, squeeze, cinch	heppeb	cord, rope for tying tightly
	hol	to pierce, bore, perforate	holob	punch, awl, pick, drill
	loh	to redeem, save, rescue	lohob	ransom
	ppis	to measure, weigh	ppisib	scales, measuring stick, compass, level

There are also a few examples of instrumental nouns derived from nominal roots in the Calepino:

(38)	<u>Noun</u>	<u>Gloss</u>	<u>Instrumental</u>	<u>Gloss</u>
	chek	footstep, footprint	chekeb	foot measure
	hal	edge, boundary, perimeter	halab	edge, boundary, perimeter
	koh	mask, representative	kohob	mask made of gourd
	mis	sweeping	misib	broom

But only two instrumental nouns are derived from intransitive roots:

(39)	<u>Intransitive</u>	<u>Gloss</u>	<u>Instrumental</u>	<u>Gloss</u>
	hel	to rest	heleb	resting place
	oc	to perforate, bore, drill	ocob	punch, awl

It is clear from the examples in (37)-(39) that -Vb was the instrumental suffix in Colonial times (V echoes the vowel in the root). However, the *Calepino de Motul* lists two instrumental nouns in which -eb served as an alternative to -Vb:

(40)	<u>Instrumental-Vb</u>	<u>Instrumental-eb</u>	<u>Gloss</u>
	ɔalab	ɔaleb	seal, mold, pattern
	kakab	kakeb	pit for roasting

In addition, the *Calepino* lists *kocheb* ‘bier with poles’ without a -Vb alternative. The source of *ɔalab/ɔaleb* was the transitive root *ɔal* ‘to compress lightly, seal,’ and the nominal root, *kak* ‘fire,’ was the source of *kakab/kakeb*. The source of *kocheb* may have been the transitive root, *koch* ‘to carry on shoulders /cross, plank/ or cautiously.’

The treatment of -eb as an alternative to -Vb as the suffix for instrumental nouns has historical implications beyond what it can tell us about the relationship between Colonial and Modern Yucatec. Among the Modern Yucatecan languages, only Mopan employs -eeb with instrumental nouns (Hofling 2008:8, 2011:26). The other Modern languages in this family—Yucatec, Itsaj, and Lacandon—have only -Vb’ as the suffix that co-occurs with instrumental nouns. That only three instrumental nouns had the -eb suffix in Colonial Yucatec suggests (1) that it must have been the instrumental suffix in Proto-Yucatecan, (2) that the shift from -eb to -Vb had almost been completed by the second half of the sixteenth century, and (3) that Mopan must have separated from Proto-Yucatecan some time before -Vb became an alternative to -eb in instrumental nouns.

The *Calepino de Motul* also contains two examples of the “locational” instrumental suffix, -ebal:

(41a) tazex a nok tazex ɕuuc t u vich luum venebal padre
 ‘spread out your bedding, spread hay on the ground for the priest’s bed!’ (Ciudad Real 1600?: fol. 401v).

(41b) v pachah can=pech culhebal
 ‘he chose Campeche for his residence’ (Ciudad Real 1600?: fol. 358r)

In the first example, -ebal is suffixed to the intransitive root, *ven* ‘to sleep.’ In the second, it follows the positional root, *cul* ‘to sit’ and -h-.¹

Only one suffix (-Vb’) marks instrumental nouns in the Hocaba dialect of Modern Yucatec. However, unlike instrumental nouns in Colonial Yucatec, they are also marked with the clitic particle, *š*, which is the Modern cognate of Colonial *ix*:

(42)	<u>Colonial</u>		<u>Modern</u>	
	<u>Instrumental</u>	<u>Gloss</u>	<u>Instrumental</u>	<u>Gloss</u>
	bahab	hammer, chisel	š b’ahab’	hammer
	haɔab	whip, knife, sword	š haɕ’ab’	whip
	heleb	resting place	š hé?eleb’	station, resting place

heppeb	cord, rope for tying tightly	§ hep'eb'	strap
holob	punch, awl, pick, drill	§ holob'	perforator, drill
ppisib	scales, measuring stick, compass, level	§ p'isib'	scales, meter stick

Obviously, the clitic particle serves as a noun classifier in this context, not a marker of feminine gender.

2.3. ABSTRACT NOUNS. Adjectival roots and stems were the most common sources of abstract nouns in Colonial Yucatec. Nominal roots and stems also served as sources of many abstract nouns. Verbal and particle roots and stems are only rarely listed as sources of abstract nouns in the Calepino de Motul.

2.3.1. ABSTRACT NOUNS DERIVED FROM ADJECTIVAL ROOTS AND STEMS. Approximately 30 abstract nouns derived from adjectival roots are mentioned in the Calepino de Motul, of which the following is a representative sample:

(43)	Adjectival		Abstract	
	<u>Root</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	côc	deaf	cocil	deafness
	com	short, brief	comil	brevity, shortness
	çuhuy	virgin	çuhuyil	virginity
	tzeem	thin, feeble, frail	tzeemil	thinness, emaciation, feebleness, weakness, frailty
	chacau	hot, warm	chacauil	fever
	chich	hard, strong	chichil	strength, force, hardness, firmness
	ek	black	ekil	blackness
	lab	old, rotten	labil	corruption, putrefaction
	noh	principal, great	nohil	greatness, grandeur, magnificence
	poloc	fat, corpulent	polocil	corpulence
	tam	deep, serious	tamil	depth, profundity
	tu	stinky, rotten	tuuil	stench
	utz	good, just	utzil	goodness, virtue, excellence, kindness

The derivational suffix in these examples is -il. However, -il seems to be in free variation with -al in some abstract nouns derived from adjectival roots:

(44)	Adjectival		Abstract	
	<u>Root</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	celem	strong, robust, vigorous	celemil	time in one's youth when one was strong and vigorous
	çiz	cold, cool	çizil	freshness
			çizal	freshness
	yaab	much, many	yaabil	abundance, multitude, plenty
			yaabal	abundance, multitude, plenty

Abstract nouns could also be derived from adjectival stems that had previously been derived from nouns by suffixing -VI or -an to the nominal root. For example, the abstract noun, canalil 'height, altitude,' was derived from the adjectival stem, canál 'above, high,' which had itself been derived by suffixing -al to the nominal root, caan 'sky, heaven.' Similarly, the nouns, cal 'taste [for beverages]' and pet 'disc,' were the

ultimate source of the abstract nouns, calanil 'drunkenness, intoxication' and petanil 'round part,' that had been derived from them by suffixing -an to their roots:

(45)	Adjectival		Abstract	
	<u>Stem</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	petan	round, circular	petanil	round part
	calan	drunk, intoxicated	calanil	drunkenness, intoxication

When suffixed to verbal roots, -a(a)n had a participial meaning, as in the following participles (followed by their corresponding abstract nouns) derived from nay 'to forget,' tap 'to adorn, decorate, embellish, arrange,' and tuub 'to forget':

(46)	Participial		Abstract	
	<u>Stem</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	nayan	forgotten	nayanil	forgotten person
	tapaan	adorned, decorated, embellished, arranged	tapaanil	decoration, ornament
	tuban	forgotten	tubanil	forgotten person or thing

The Hocaba dialect of Modern Yucatec distinguishes two kinds of nouns derived from adjectival roots and stems: abstract nouns and nouns that have a partitive meaning. The first group is marked by -il, as in (47) below (V. Bricker et al. 1998:366):

(47)	<u>Adjective</u>	<u>Gloss</u>	<u>Abstract Noun</u>	<u>Gloss</u>
	ʔal	heavy	ʔaal-il	weight
	ʔuʃ	good, just	ʔuʃ-il	goodness, justice
	čič	hard	čič-il	hardness
	čokow	hot	čokw-il	fever
	č'óoč'	salty	č'óoč'-il	saltiness
	hàah	true	hàah-il	truth
	kéʔel	cold	kéʔel-il	winter
	k'àas	bad, ugly	k'àas-il	evil, ugliness
	k'oháʔan	sick, ill	k'oháʔan-il	illness, disease
	sahak	fearful	sàahk-il	fear
	sàak'	itchy	sàak'-il	itch
	tuʔ	stinky, rotten	tuʔ-il	stench
	wíʔih	hungry	wíʔih-il	hunger

The second suffixes -Ø to the adjectival stem (Bricker et al. 1998:366):

(48)	<u>Adjective</u>	<u>Gloss</u>	<u>Partitive Noun</u>	<u>Gloss</u>
	ʔal	heavy	uy al-Ø	the heavy one
	ʔuʃ	good, just	uy uʃ-Ø	the good one
	čič	hard	u čič-Ø	the hard one
	čokow	hot	u čokow-Ø	the hot one
	č'óoč'	salty	u č'óoč'-Ø	the salty one
	hàah	true	u hàah-Ø	the true one

ké?el	cold	u ké?el-Ø	the cold one
k'àas	bad, ugly	u k'àas-Ø	the bad one
k'ohá?an	sick, ill	u k'ohá?an-Ø	the sick one
sahak	fearful	u sahak-Ø	the fearful one
sàak'	itchy	u sàak'-Ø	the itchy one
tu?	stinky, rotten	u tu?-Ø	the stinky one
wí?ih	hungry	u wí?ih-Ø	the hungry one

Apparently, this was not also the case in Colonial Yucatec, where nouns derived from adjectival roots and stems with -il could have both functions. For example, y utzil had an abstract meaning ('his goodness') in (49a) and a partitive meaning ('the good ones') in (49b):

- (49a) pot manan y utzil Dios y okol t u lacial hi=bahun vchac v tuclabal
'the goodness of God exceeds everything that can be imagined' (Ciudad Real 1600?: fol. 381v)
- (49b) chíchex v lobil hinah ca u cheh v ba y utzil
'pick up the bad seeds so that the good ones may be separated!' (Ciudad Real 1600?: fol. 139r)

The partitive function of -il was also evident in nouns derived from adjectival and participial stems in Colonial Yucatec:

- (50a) v petanil hostia
'the round part of the wafer' (Ciudad Real 1600?: fol. 374r)
- (50b) v petanil kin
'the round part of the sun' (Ciudad Real 1600?: fol. 374r)
- (50c) ma a tuclic a tubanil t in men v tal kinie
'don't think that you were a forgotten person of mine in the past!' (Ciudad Real 1600?: fol. 409r)

2.3.2. ABSTRACT NOUNS DERIVED FROM NOMINAL ROOTS AND STEMS. The semantic relationship between nominal roots and the abstract nouns that were derived from them in Colonial Yucatec is shown in (51):

- (51)
- | Nominal
Root | Gloss | Abstract
Noun | Gloss |
|-----------------|-----------------------------------|------------------|--|
| ahau | king, emperor,
monarch, prince | ahaulil | kingdom, empire, monarch |
| batab | chief, leader | batabil | leadership, territory of chief |
| chahuc | fruit | chahucil | sweetness |
| ku | God | kuil | divinity |
| muu | sister-in-law,
brother-in-law | muuil | in-law relationship |
| tumut | plan, advice | tumutil | consideration, sketch, prudence |
| vah | tortilla, bread | vahil | banquet, meal |
| vinic | man, woman | vinicil | human being, body, human condition
or quality |

yam	interval, distance, concavity between two things	yamlil	interruption
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The derivational suffix was -il or, occasionally, -lil in this group of abstract nouns (e.g., ahaulil, yamlil).

A few nominal stems of unknown origin also served as sources of abstract nouns, whose derivational suffix was also -il:

(52)	Nominal		Abstract	
	<u>Stem</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	onel	consanguineal relative	onelil	consanguineal relationship
	pixan	soul	pixanil	beatitude, bliss, well-being
	ppentac	slave, servant, captive	ppentacil	servitude
	tamacaz	seizure	tamacazil	craziness, madness, frenzy

The use of -il for deriving abstract nouns from nominal roots has also been documented in the Hocaba dialect of Modern Yucatec:

(53)	Nominal		Abstract	
	<u>Root</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	ʔàak'	vine	ʔàakil ²	patch of vines
	čáak	rain	čáakil	rainy season
	š č'up	woman, lady	š č'ùupil	female sex organs
	k'íiwik	plaza, square, market	k'íiw(i)kil	urbanite
	nal	ear of corn	nalil	green corn season
	šanab'	shoe	šan(a)b'il	shoe shop, town where shoes are made
	wíinik	man, person	wíin(i)kil	body, warp [backstrap loom]

The same is true of abstract nouns derived from nominal stems (e.g., ʔóoʒilil 'poverty, misery' < ʔóoʒil 'poor person').

2.3.3. ABSTRACT NOUNS DERIVED FROM PARTICLE ROOTS AND STEMS. Only three abstract nouns in the Calepino de Motul were derived from particle roots or stems:

(54)	Particle		Abstract	
	<u>Root</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	bay	thus, as, like so	bail	condition, aptitude, capacity, inclination
	yan	there exists, happen	yanil	state, condition, worth, concern
	manaan	there isn't any	manaanil	lack, absence

manaan is a contraction of the negation of yan (ma yan) and functions as a particle stem. I have no comparable data for Modern Yucatec.

2.3.4. ABSTRACT NOUNS DERIVED FROM TRANSITIVE ROOTS. I am aware of only two examples of abstract nouns derived from transitive roots, one in Colonial Yucatec (bilil ‘hem’ < bil ‘to hem, edge /clothes/’ [Ciudad Real 1600?: fol. 52]) and the other in the Hocaba dialect of Modern Yucatec ((kòolil ‘felling season’ < kol ‘to fell trees, clear a field’ [V. Bricker et al. 1998:132]).

2.3.5. ABSTRACT NOUNS DERIVED FROM INTRANSITIVE STEMS. Abstract nouns were derived from the imperfective stems of root intransitives in Colonial Yucatec, not from their roots:

(55)	Intransitive		Abstract	
	<u>Stem</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	nahal	to merit, deserve, win	nahalil	merit, benefit, advantage
	nicil	to stop, cease	nicilil	end

Our dictionary of the Hocaba dialect of Modern Yucatec lists no abstract nouns derived from intransitive roots or stems.

2.4. VERBAL NOUNS. Transitive roots were the source of verbal nouns in Colonial Yucatec and had the same shape as the antipassive stems derived from such roots:

(56)	Antipassive		Verbal	
	<u>Stem</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	boc	to give off odor	boc	odor, smell
	conol	to sell	conol	goods for sale
	hoch	to harvest corn	hoch	harvested corn
	kuch	to spin	kuch	thread, wick
	tʰan	to speak, call	tʰan	word, language, speech

The same is true of verbal nouns in Modern Yucatec, for which there is phonetic evidence of the identical shape of the two kinds of stems:

(57)	Antipassive		Verbal	
	<u>Stem</u>	<u>Gloss</u>	<u>Noun</u>	<u>Gloss</u>
	hùučʼ	to grind /corn/	hùučʼ	corn dough
	kòonol	to sell	kòonol	sale goods
	kʼàay	to sing	kʼàay	song
	kʼùučʼ	to spin, make into thread	kʼùučʼ	wick, mop (threads)
	pakʼal	to plant	pakʼal	planting
	pʼiis	to measure, weigh	pʼiis	measure, measurement
	toʔ	to wrap	toʔ	bundle
	tʼàan	to speak	tʼàan	speech, word, language

Antipassives are formed by deleting the direct object from the verb stem and intransitivizing the verb (cf. **1.1.3.** in Chapter 7). The focus of such verbs is on the agent of the action. The same is true of verbal nouns when they are inflected for possession with the suffix -Ø. Some verbal nouns can also be inflected for associative possession with -il. In such cases, the possessor serves as the recipient, rather than the agent,

of the action specified by the noun. The following pairs of examples from the Calepino de Motul illustrate the contrast between agentive and benefactive possession in Colonial Yucatec:

- (58a) va ppul-en-ppul a kuche ca a paste
'if your thread widens, extract the burls it contains!' (Ciudad Real 1600?: fol. 357v)
- (58b) v kuchil cib
'the wick of the candle' (Ciudad Real 1600?: fol. 252v)
- (59a) y ocçah v ba t u yam v nupob
'he reconciled himself with his enemies' (Ciudad Real 1600?: fol. 341r)
- (59b) lici tac v lubul vinic ti ahualbil kebane
'as soon as a man falls into mortal sin,

ca ococ t u nupil Dios
he becomes an enemy of God' (Ciudad Real 1600?: fol. 267v)
- (60a) lah=cetçunex a ppiz
'level your measure!' (Ciudad Real 1600?: fol. 259v)
- (60b) chek=octe v ppizil y otoch ku
'pace out the size of the church!' (Ciudad Real 1600?: fol. 139v)
- (61a) manaan v chich=na a tñanex a beeleç
'there is no order in your words and your deeds' (Ciudad Real 1600?: fol. 143v)
- (61b) ma a pec=oltic v ça=yatzil Dios y etel v tñanil sancto euangelio
'don't doubt God's mercy nor the words of the holy gospel' (Ciudad Real 1600?: fol. 370v)

The same contrast exists in the Hocaba dialect of Modern Yucatec:

- (62a) tú?uř yàan u hùuč' š piil
'where is Phyllis' corn dough?' (V. Bricker et al. 1998:113)
- (62b) t in manah u hùuč'il sa?
'I bought corn dough for gruel' (V. Bricker et al. 1998:113)
- (63a) u k'àay š piile? séen haç'uç
'Phyllis's song is very nice' (V. Bricker et al. 1998:149)
- (63b) u k'àayil u k'îin u k'àab'a š piil
'the song for Phyllis's birthday' (V. Bricker et al. 1998:149)
- (64a) haç yá?ab' im pak'al yàan
'my plantings are very numerous' (V. Bricker et al. 1998:206)

- (64b) lela? u pak'(a)lil in kòol
'this is the planting of my cornfield' (V. Bricker et al. 1998:206)
- (65a) ʔ'áah ten in to? yàan té?elo?
'give me my bundle that is over there!' (V. Bricker et al. 1998:277)
- (65b) hay p'éel u to?il wàah t a manah
'how many bundles of tortillas did you buy?' (V. Bricker et al. 1998:277)
- (66a) lela? u t'àan šìib'
'this is a man's word' (V. Bricker et al. 1998:289)
- (66b) u t'àanil in kàahale? ma t a ná?atik
'as for the language of my town, you don't understand it' (V. Bricker et al. 1998:289)

2.5. RELATIONAL NOUNS. Only three particles served as prepositions in Colonial Yucatec: ti (phonetic [tiʔ]) 'to, at, in, from, for'; ich (phonetic [ʔič]) 'in, within'; and tac (phonetic [tak]) 'until, from.' All other prepositional functions, as well as those performed by conjunctions, were handled by relational nouns inflected for possession. In some cases, the roots of such expressions were nouns:

(67)	Relational Noun	Gloss	Root	Gloss
	y etel	with, and	et	equal, same
	y ok(ol)	above, upon, on	ok	above
	t u men(el)	by, because	men	deed
	t u pach	behind	pach	back, rear side
	t u tan	before	tan	front, presence

y etel and y okol were inflected for possession with the clitic pronoun and a -VI suffix. The relational nouns based on men sometimes co-occurred with -VI and sometimes with -Ø (no suffix), apparently with no difference in meaning:

- (68a) in menel pucci Juan
'it was because of me that John fled' (Ciudad Real 1600?: fol. 305r)
- (68b) peo hun t a kab ca maac v cħabal t u menel ik
'press the paper with your hand so that it is not carried off by the wind!' (Ciudad Real 1600?: fol. 372r)
- (68c) pap in ich t u men buo
'my eyes are burning because of the smoke' (Ciudad Real 1600?: fol. 367r)
- (68d) paayi v beel t u men v çucun
'he was guided by his older brother' (Ciudad Real 1600?: fol. 360r)

t u menel still served as an alternative to t u men as late as 1935 in eastern Yucatan, but is no longer in use in Hocaba:

- (69a) le š č'úpalo? táan u sèen lóoločá?al t u mèn hwàan
'that girl is constantly being embraced by John' (V. Bricker et al. 1998:170)
- (69b) hwàane? hač ǵ'oyá?an t u mèn má? ǵ'ok=luk'ul u h'àanli?
'John, he's very skinny because he doesn't eat enough' (V. Bricker et al. 1998:174)

The history of the alternation between y okol and y ok is similar to that of t u menel and t u men, except that y ok occurs only once in the Calepino de Motul:

- (70a) tij tun vil hi=mac yantacob Judeae xijcob ti pucul ti vitz
'and those who are in Judea fled into the hills,

hex yanob y ok nae
as well as those above the house' (Ciudad Real 1600?: fol. 184r)
- (70b) bin tac cimil au okol ti ma kahan tech
'death will come over you without you being aware of it' (Ciudad Real 1600?: fol. 73v)
- (70c) lubaan ya y okol
'misery has fallen upon him' (Ciudad Real 1600?: fol. 274v)

However, it appeared six times in a 1596 document from Sabacche in the Puuc region, of which two examples were in identical contexts with six y okol examples in the same document:

- (71a) xic ti xaman ti yan mul=tun y ok vitz
'it might go north, where there is a mound above the cliff' (SB596B-135-136)
- (71b) xic ti nohol ti yan mul=tun y okol vitz
'it might go south, where there is a mound above the cliff' (SB596B-089-090)

Clearly, y ok was in free variation with y okol during the Colonial period.

Over time, the glottalized "k" in y okol (phonetic [y óok'ol]) was reduced to a glottal stop [y óo?]:

- (72a) t uy óo? nah
'on the house' (V. Bricker et al. 1998:17)
- (72b) š'ipal má? a kotal y óo? tùunič
'child, don't sit on the stone!' (V. Bricker et al. 1998:16)

But there are also examples of y óok' and y óok'ol in Hocaba today;

- (72c) y óok' ǵ'onó?ot
'above the cenote' (V. Bricker et al. 1998:17)
- (72d) t uy óok'ol če?
'on the tree' (V. Bricker et al. 1998:16)

On the other hand, although *y etel* ‘with, and’ was sometimes abbreviated as *y et*, the full form of the relational noun, which serves both as the preposition “with” and as the conjunction “and,” has predominated through time:

- (73a) *kóʔoʃ t inw éetel hoʔ*
 ‘come with me to Merida!’ (V. Bricker et al. 1998:9)
- (73b) *t uy isíinsen y éetel hanal*
 ‘he bathed me with food [clumsy waiter in restaurant]’ (V. Bricker et al. 1998:13)
- (73c) *ǵóʔok u čáahal u ǵóʔokol u b’èel h pèedro y éetel š màas*
 ‘Peter and Marcella’s engagement was broken’ (V. Bricker et al. 1998:58)

However, it was often abbreviated further as *y.*, *yt.*, *ytel*, and *.y.* during the Colonial period in apparent imitation of the abbreviation of Latin *ytem* ‘and’ as *yt*.

The preposition, *ti*, is the source of another relational noun, *tial*, that functions as a possessive pronoun in Colonial and Modern Yucatec (see 5. in Chapter 4 for a detailed discussion of this pronominal base). The third-person singular form of this pronoun, *u tial* (also *u tiyal*) in Colonial Yucatec and *u tyáʔal* in Modern Yucatec, has been grammaticalized as a conjunction meaning ‘in order that.’

2.6. NOUN CLASSIFIERS. The use of the clitic particles, *ah* and *ix*, in Colonial Yucatec and their Modern cognates, *h* and *š*, is not limited to kinship terms and agentive nouns. They can also be found in other semantic domains, such as faunal and botanical terms and toponyms. As such, they fall under the rubric of noun classifiers, instead of markers of sex gender.

2.6.1. NOUN CLASSIFIERS WITH FAUNAL TERMS. Animals can be grouped into the following general categories: birds, mammals, reptiles, insects, and fish.

2.6.1.1. AVIAN TERMS. Less than half of the 46 avian terms listed in the *Calepino de Motul* co-occur with clitic particles, but those that do co-occur with *ah*.

2.6.1.1.1. AVIAN TERMS THAT CO-OCCUR WITH AH. The *Calepino de Motul* lists 23 avian terms that co-occurred with *ah* in Colonial Yucatec, of which the following are representative examples:

(74)	<u>Avian term</u>	<u>Gloss</u>
	<i>ah bich</i>	young duck
	<i>ah box</i>	a small cock of the land
	<i>ah cuzam</i>	swallow
	<i>(ah) cuy³</i>	type of owl
	<i>ah çul</i>	quail
	<i>ah tzoo</i>	rooster with wattles, turkey cock
	<i>(ah) čhom</i>	black vulture with red head
	<i>ah čhuy</i>	any bird of prey
	<i>ah ij</i>	type of hawk
	<i>ah lapp</i>	raptor
	<i>ah pol</i>	male quail
	<i>ah tab</i>	pheasant

ah t̥hau	turkey cock
ah t̥hel	Spanish rooster that has a comb

The clitic particle in ah tzoo, ah pol, and ah t̥hau could have served as a gender marker because these terms refer to male roosters, turkeys, and quail.

Seven examples in this list have cognates in the Hocaba dialect of Modern Yucatec:

(75)	<u>Avian term</u>	<u>Gloss</u>
	š kusàam	swallow
	h ʔoʔ	turkey cock
	h ʔòom	vulture
	h ʔùuy	hawk
	(h) ʔiʔ	hawk
	h t'àaw	three-to-four-month-old turkey
	h t'èel	rooster

Note that the modern cognate of Colonial ah cuzam 'swallow' is š kusàam (not h kusàam) in Modern Yucatec.

In addition to the 23 monolexemic terms mentioned above, the Calepino also lists 25 compounds that co-occurred with ah and referred to birds, of which the following are examples:

(76)	<u>Avian term</u>	<u>Gloss</u>
	ah cencen=bac	merlin, kestrel, sparrow hawk
	ah colom=tee	woodpecker [with red or black head]
	ah tzoo=bach	male chachalaca
	ah tzoo=cutz	ocellated turkey of the woods with wattles
	(ah) ʔiu=aban	thrush of this land
	ah ʔhuy=tun	sparrow hawk, osprey, or kite of this land
	(ah) ek=pip	a type of black hawk
	ah lapp=chich	a raptor

Cognates of two of these avian compounds occur in the Hocaba dialect of Modern Yucatec, but without the noun classifier, h:

(77)	<u>Avian term</u>	<u>Gloss</u>
	ʔéeʔ=píip	a type of hawk
	kolon=teʔ	woodpecker

2.6.1.1.2. AN AVIAN TERM THAT CO-OCCURS WITH IX. The Calepino de Motul mentions only one avian term that co-occurred with ix in Colonial Yucatec, ix tux 'turkey hen,' and š tùuš 'turkey hen' is its cognate in Modern Yucatec. Clearly, the clitic particle marks the noun as feminine in both cases.

2.6.1.1.3. AVIAN TERMS THAT DO NOT CO-OCCUR WITH NOUN CLASSIFIERS. The Calepino de Motul lists 22 avian terms with neither ah nor ix as clitic particles. A representative sample of them is listed below:

(78)	<u>Avian term</u>	<u>Gloss</u>
	baach	a type of pheasant
	bech	quail

coz	raptor that catches chickens
cutz	turkey hen of this land
çiiɔ	turkey buzzard
tzutzuy	small turtledoves of this land
čahum	woodpecker with crest and red head
čhel	magpie
čhičh	bird
icin	a type of owl
kuch	turkey buzzard, vulture
moo	macaw
mucuy	turtledove
nom	partridge
op	parrot
pičh	a small thrush of this land
ulum	turkey

The Hocaba dictionary of Modern Yucatec lists fourteen cognates of these terms:

(79)	<u>Avian term</u>	<u>Gloss</u>
	b'aač	chachalaca
	b'èeč'	quail
	kòos	a nocturnal hawk?
	kùuɟ	wild turkey
	ɟùuɟuy	wild dove
	č'ahun	a bird similar to a woodpecker, but smaller
	č'èel	magpie
	č'iič'	bird
	š ʔiikim	owl
	mukuy	turtledove
	nòm	partridge
	š ʔòop	parrot
	pič'	thrush
	ʔúulum	turkey

The names of only two birds on this list have acquired clitic particles since the late sixteenth century, in both cases the Modern cognate of ix: š ʔiikim 'owl' and š ʔòop 'parrot.' The roots of both of them begin with a glottal stop, suggesting the possible motivation for this apparent innovation. However, ʔúulum 'turkey' has not yet undergone this change (and perhaps never will).

2.6.1.2. MAMMALIAN TERMS. Only seven of the 26 terms for mammals listed in the Calepino de Motul co-occur with clitic particles, and those that do co-occur with ah.

2.6.1.2.1. MAMMALIAN TERMS THAT CO-OCCUR WITH AH. The mammalian terms that co-occurred with ah in Colonial Yucatec were:

(80)	<u>Mammalian term</u>	<u>Gloss</u>
	(ah) bil	hairless dog
	ah cib	a small animal that resembles a small puma but has the color of a lion
	ah chab	anteater, sloth
	ah chuchul	wildcat species
	(ah) maax	spider monkey
	ix maax	female spider monkey
	ah pez	male badger

The use of the clitic particles, ah and ix, with maax 'spider monkey' mark them as male or female, and the gloss for ah pez specifies that the badger is male.

Only three terms for mammals in the list have cognates in the Hocaba dialect of Modern Yucatec:

(81)	<u>Mammalian term</u>	<u>Gloss</u>
	h čab'	anteater
	h čùučul	margay
	h màaš	spider monkey

They have retained ah in its Modern form.

In addition to the seven monolexemic mammalian terms mentioned above, the Calepino also lists four compounds that co-occurred with ah and referred to mammals:

(82)	<u>Mammalian term</u>	<u>Gloss</u>
	ah ba=čho	large rats that live below the ground like moles
	(ah) cab=coh	small puma
	(ah) çam=hol	kinkajou
	ah vay=mi	wildcat that goes about in the trees and breeds in its hole

None of these compounds occurs in the Hocaba dialect of Modern Yucatec.

2.6.1.2.2. MAMMALIAN TERMS THAT DO NOT CO-OCCUR WITH NOUN CLASSIFIERS. The Calepino de Motul lists 19 mammalian terms with neither ah nor ix as clitic particles. Some examples of such terms appear below:

(83)	<u>Mammalian term</u>	<u>Gloss</u>
	ba	mole, gopher
	balam	jaguar
	ceh	white-tailed deer
	citam	wild pig
	cooh	puma
	çabim	weasel
	çoo	bat
	tzub	agouti
	čhamac	fox
	čhoo	rat, mouse

yuc	brocket deer
keken	pig, hog
och	opossum
paay	skunk
pek	dog
tʰul	rabbit, mule

Each of these terms has a cognate in Modern Yucatec:

(84)	<u>Mammalian term</u>	<u>Gloss</u>
	h b'ah	mole
	b'áalam	jaguar
	(h) kéeh	deer
	kitam	peccary
	h koh	puma
	h kúʔuk	squirrel
	ʔùub'	agouti
	č'amak ~ č'omak	gray fox
	č'oʔ	rat, mouse
	k'éek'en	pig
	ʔòoč	fox, weasel
	h páay	skunk
	pèek'	dog
	sáab'in	weasel
	sòoʔ'	bat
	t'úʔul	rabbit
	(h) yùuk	fawn

Six of these terms have acquired the clitic particle, h (formerly ah), in the transition from Colonial to Modern Yucatec. The remaining eleven terms have not undergone this change.

2.6.1.3. REPTILIAN TERMS. Only five of the 17 reptilian terms listed in the Calepino de Motul co-occur with either ah or ix.

2.6.1.3.1. REPTILIAN TERMS THAT CO-OCCUR WITH AH OR IX. The examples in (85) show that four terms for reptiles co-occurred with ah and one with ix in Colonial Yucatec:

(85)	<u>Reptilian term</u>	<u>Gloss</u>
	ah bab	large toad
	ah ceuez	male iguana
	(ah) kolo	turkey cock
	ah tzeel	male iguana
	(ix) mech	small lizard

Three of the terms, ah ceuez 'male iguana,' (ah) kolo 'turkey cock,' and ah tzeel 'male iguana,' refer to male animals, implying that ah served as a gender clitic particle with them.

The only reptilian term that has a cognate in the Hocaba dialect of Modern Yucatec is the compound, ah tzab=can 'rattlesnake,' whose Modern cognate is čáa?=kàan with the same meaning, but it does not co-occur with the noun classifier, h.

2.6.1.3.2. REPTILIAN TERMS THAT DO NOT CO-OCCUR WITH NOUN CLASSIFIERS. Eight of the 12 terms that did not co-occur with noun classifiers in Colonial Yucatec have cognates in the Hocaba dialect of Modern Yucatec:

(86)	<u>Reptilian term</u>	<u>Gloss</u>
	ac	turtle, tortoise, fresh-water turtle
	ayn	cayman, alligator
	can	snake, worm
	huh	iguana
	kokob	poisonous snake, viper
	much	frog
	pol=poch	fer-de-lance
	uo	frog, toad

Their Modern cognates in Hocaba are listed in (87) below:

(87)	<u>Reptilian term</u>	<u>Gloss</u>
	?áak	turtle
	?áayin ~ ?áayil	alligator
	hùuh	iguana
	kàan	snake, worm
	š k'óok'ob'	name of serpent
	mùuč	toad, frog
	wo?	a type of frog
	wóol=póoč	fer-de-lance

Of these, only one reptilian term, š k'óok'ob' 'name of serpent,' has acquired š as a noun classifier in Modern Yucatec, and none employ h as a noun classifier.

2.6.1.4. TERMS FOR INSECTS AND WORMS. Less than one-third of the 32 terms for insects in the Calepino de Motul co-occur with ah or ix.

2.6.1.4.1. TERMS FOR INSECTS AND WORMS THAT CO-OCCUR WITH AH. Seven of the ten insectival terms that co-occur with noun classifiers are listed with ah in the Calepino de Motul:

(88)	<u>Insectival term</u>	<u>Gloss</u>
	ah bool	native stingless bee
	ah çao	large worms eaten by the Indians
	ah çay	large ants
	(ah) ciçil	bedbug
	ah kizil	small, black, flying beetles
	ah leum	type of spider
	(ah) pic	blood-sucking cockroach

Three terms in this list have cognates in the Hocaba dialect of Modern Yucatec:

(89)	<u>Insectival term</u>	<u>Gloss</u>
	h pik	blood-sucking cockroach
	sač'in	a type of slug or caterpillar
	sàay	Argentine ant

Only one of these cognates has retained the Modern cognate of ah: h.

To these monolexemic terms can be added nine compounds that co-occur with ah, of which the following are examples:

(90)	<u>Insectival term</u>	<u>Gloss</u>
	ah box=pech	a type of medium-sized tick
	ah cab=luum	a type of bumblebee
	ah chibal yax=cach	biting fly
	ah chuah=cab	wild bees
	ah é=cum çinic	black winged ant
	ah mahan=na pepem	large butterfly
	ah pul=cimil nok	worms that carry pestilence

Only one of these examples has a cognate in the Hocaba dialect of Modern Yucatec: š yá?aš=kač 'house fly.'

2.6.1.4.2. TERMS FOR INSECTS THAT CO-OCCUR WITH IX. Four of the five insectival terms that co-occur with ix refer to types of cicadas:

(91)	<u>Insectival term</u>	<u>Gloss</u>
	ix coochol	certain large cicadas that destroy grapevines
	ix kochol	cicadas without wings that move slowly, with a neck like a friar's cowl
	ix mochoch	cicada
	ix mohoch	cicadas without wings that move slowly, with a neck like a friar's cowl
	ix tuzil	clothes moth

Only two terms in this list have cognates in the Hocaba dialect of Modern Yucatec:

(92)	<u>Insectival term</u>	<u>Gloss</u>
	š kòočol	cricket
	š tùusil	caddis fly

2.6.1.4.3. TERMS FOR INSECTS AND WORMS THAT DO NOT CO-OCCUR WITH NOUN CLASSIFIERS. Twenty of the 36 insectival terms plus one term for worm in the Calepino de Motul do not co-occur with noun classifiers and also have cognates in the Hocaba dialect of Modern Yucatec:

(93)	<u>Insectival term</u>	<u>Gloss</u>
	áčach	horsefly, botfly
	am	spider
	cab	bee
	cocay	firefly

çak	grasshopper, locust
çinic	ant
cñic	flea
holon	drone, bumblebee, hornet
koxol	mosquito
kulim	blood-sucking tick of this land
lucum	angleworm
maz	cricket
nin	mealybug
nokol	caterpillar
pech	tick
pepem	butterfly
ppa	chicken louse
uel	gnat
uk	louse
xulab	biting ant that eats honey and bees
xux	wasp

The corresponding cognates in the Hocaba dictionary are listed in (94):

(94)	<u>Insectival term</u>	<u>Gloss</u>
	ʔáakač	gadfly, horse-fly
	(h) ʔam	spider
	č'ik	flea
	holom	scarab beetle
	kàab'	bee
	kóokay	firefly
	k'ošol	mosquito
	h k'ulin	blood-sucking tick
	š lukum=kàan	angleworm
	h máas	cricket
	níʔin	mealybug
	š nóʔok'ol	caterpillar
	pèeč	tick
	péepem	butterfly
	š p'ah	chicken louse
	sáak'	grasshopper, locust
	síinik	ant
	šúulab'	cornfield ant
	šùuš	wasp
	ʔuk'	louse
	h wéel	gnat

Seven terms now have noun classifiers, four with h and three with š. Three of the cognates with h refer to biting insects. The fourth is the term for cricket, which is not known for biting. The use of š is also inconsistent. One of the terms refers to a caterpillar and the other to a worm. The third refers to a chicken louse.

2.6.1.5. TERMS FOR FISH. The Calepino de Motul lists 11 terms for fish, five of which co-occur with ah or ix.

2.6.1.5.1. TERMS FOR FISH THAT CO-OCCUR WITH AH OR IX. The following terms for fish co-occurred with ah in Colonial Yucatec:

(95)	<u>Fish term</u>	<u>Gloss</u>
	(ah) luu	freshwater catfish
	ah pat	dogfish, shark
	(ah) xac	<i>mojarra, peje</i>
	ah yul	spotted dogfish

Only (ah) luu has a cognate in the Hocaba dialect of Modern Yucatec: h lu? ‘a small black fish.’ The fifth term in Colonial Yucatec was ix toc ‘sardines,’ for which there is no cognate term in the Hocaba dictionary.

To them can be added two compounds in the Calepino de Motul that referred to fish:

(96)	<u>Fish term</u>	<u>Gloss</u>
	ah col=cay	sheepshead [marine fish]
	ah cul=che	tasty, medium-sized marine fish

2.6.1.5.2. TERMS FOR FISH THAT DO NOT CO-OCCUR WITH NOUN CLASSIFIERS. Six terms for fish that did not co-occur with noun classifiers are listed in the Calepino de Motul. The glosses for those terms are vague, and they do not have cognates in the Hocaba dialect of Yucatecan Maya. Therefore, they are not considered further here.

2.6.2. NOUN CLASSIFIERS WITH BOTANICAL TERMS. The Calepino de Motul lists 81 roots that refer to plants, of which only five co-occur with ah or ix.

2.6.2.1. BOTANICAL TERMS THAT CO-OCCUR WITH AH. The following terms for plants co-occurred with ah in Colonial Yucatec:

(97)	<u>Botanical term</u>	<u>Gloss</u>
	ah max	small, wild chili pepper
	(ah) mul	plant with burs that stick to clothes
	(ah) xúcul	purslane

Each term has a cognate in the Hocaba dialect of Yucatecan Maya, none of which occurs with a noun classifier:

(98)	<u>Botanical term</u>	<u>Gloss</u>
	màaš	wild chili pepper <i>Capsicum annuum</i> L.
	mul	a grass producing spiny burs used for removing children's loose teeth <i>Cenchrus pilosus</i> HBK
	šukul	purslane <i>Portulaca oleracea</i> L.

2.6.2.2. BOTANICAL TERMS THAT CO-OCCUR WITH IX. Two monolexemic terms for plants co-occurred with ix in Colonial Yucatec:

(99)	<u>Botanical term</u>	<u>Gloss</u>
	(ix) chuch	a medicinal plant
	(ix) koch	castor bean

Both of them have cognates in the Hocaba dialect of Modern Yucatec:

(100)	<u>Botanical term</u>	<u>Gloss</u>
	(h) čuč	<i>Priva lappulacea</i> (L.) Pers.
	š k'ó?oč	castor bean <i>Ricinis communis</i> L.

The Calepino contains eight botanical compounds with ix, in addition to the two monolexemic terms mentioned above:

(101)	<u>Botanical term</u>	<u>Gloss</u>
	ix akab=nic	jasmynes that only produce scent at night
	ix cabal=hau	root serves as antidote against all kinds of poison or venom
	ix cabal yax=nic	a small plant with blue flowers whose sap is marvellous for open wounds
	ix ɔacal=bac	root is good for curing broken or dislocated bones
	ix chichi=be	mallow of this land
	ix chi=op=le	a plant or bush with aromatic leaves
	ix kan=tun=bub	medicinal herb antidote for poison
	ix taman=can	a sorrel-like herb

Three of these compounds have cognates in the Hocaba dialect of Modern Yucatec:

(102)	<u>Botanical term</u>	<u>Gloss</u>
	š čí?ičí?=b'eh	<i>Sida acuta</i> Burm. f.
	š kàamb'al=hàaw	<i>Dorstenia contrajerva</i> L.
	š k'áan=tun=b'úu?	<i>Melampodium divaricatum</i> (L. Rich.) DC.

Note that all of these compounds have the š cognate of ix in Modern Yucatec.

2.6.2.3. BOTANICAL TERMS THAT DO NOT CO-OCCUR WITH NOUN CLASSIFIERS. The Calepino de Motul lists 76 monolexemic terms for plants that do not co-occur with ah or ix, 56 of which have cognates in the Hocaba dialect of Modern Yucatec. A representative sample of them appears in (103) below:

(103)	<u>Botanical term</u>	<u>Gloss</u>
	abal	plum
	beeb	spiny plants
	buul	small beans
	ca	edible squash with white stripes
	copo	a type of fig tree with small fruit
	çìim	green wormwood of this land

chacah	gumbo-limbo
chij	nance
č'oh	indigo
ya	sapote
ic	chili pepper
iç	sweet potato
ixim	corn
lal	nettle
on	avocado
ppac	tomato
tez	wild amaranth

The Modern cognates of these terms are:

(104) Botanical term	Gloss
ʔabal	plum
b'éʔeb'	a woody vine, often with prominent spines <i>Pisonia aculeata</i> L.
b'úʔul	beans
čakah	<i>Bursera simaruba</i> (L.) Sargent
čiʔ	nance <i>Byrsonima crassifolia</i> (L.) HBK
č'òoh	indigo <i>Indigofera suffruticosa</i> Miller
ʔiik	chili pepper <i>Capsicum annuum</i> L.
ʔiis	sweet potato <i>Ipomoea batatas</i> (L.) Lam.
ʔišiʔim	corn <i>Zea mays</i> L.
š kaʔ	round squash <i>Cucurbita mixta</i> Pang.
kóopoʔ	<i>Ficus cotinifolia</i> HBK
láal	nettle <i>Urera caracasana</i> (Jacq.) Griseb.
ʔòom	avocado <i>Persea americana</i> Mill.
p'àak	tomato <i>Lycopersicon esculentum</i> Miller
síʔisim	<i>Artemisia vulgaris</i> L.
š tèes	<i>Amaranthus spinosus</i> L.
yaʔ	sapote <i>Manilkara achras</i> (Mill.) Fosberg

2.6.3. THE FUNCTION OF AH AND IX IN FAUNAL AND BOTANICAL TERMS. Exactly half of the monolexemic avian terms in the Calepino de Motul co-occur with the noun classifier, ah (23 of 46 terms). In addition, 25 compound avian terms co-occur with this classifier. Only one avian monolexemic term co-occurs with ix. Clearly, there was a strong relationship between avian terms of both kinds and ah in Colonial Yucatec.

The data for other kinds of faunal terms are less clear, but, in general, ah was more common than ix with them as well.

The two monolexemic and eight compound botanical terms that co-occur with ix in the Calepino de Motul suggest that ix had a stronger relationship with botanical terms than ah in Colonial Yucatec. This observation is corroborated by a much larger source of botanical terms, the Book of Chilam Balam of Kaua, which contains the names of 398 different plants (V. Bricker and Miram 2002:477–485). As in the Calepino de Motul, the botanical terms that did not co-occur with noun classifiers greatly outnumbered those that had them (375 versus 23).⁴ Of the ones that did co-occur with noun classifiers, only two botanical terms co-occurred with h:

(105)	<u>Botanical term</u>	<u>Gloss</u>
	h beb	<i>Pisonia aculeata</i> L.
	h uas	<i>Crescentia cujete</i> L.

Four terms co-occurred with ix, and the remaining 17 co-occurred with x. Clearly, by the end of the eighteenth century, to which the extant version of the *Kaua* can be dated, ah and ix were well along in the process of being reduced to h and x, respectively, and (i)x had a much stronger relationship to botanical terms than (a)h.

It should be noted that only eight of the 23 botanical terms with (i)x were monolexemic:

(106)	<u>Botanical term</u>	<u>Gloss</u>
	x contaci	kumquat <i>Syzygium aromaticum</i> (L.) Merr. & Berry
	x hail	<i>Ipomoea meyeri</i> (Spreng.) Don
	x hoyoc	<i>Morinda yucatanensis</i> Greenm.
	x jouen	<i>Spondias purpurea</i> L.
	x kanan	firebush <i>Hamelia patens</i> Jacq.
	x pak-um-pak	spurge <i>Euphorbia dioica</i> HBK
	x tuhuy	frangipani <i>Plumeria pudica</i> Jacq.

The remaining 15 botanical terms with (i)x are compounds (see 3. below), of which the following are examples:

(107)	<u>Botanical term</u>	<u>Gloss</u>
	ix cacal=tun	wild basil <i>Ocimum micranthum</i> Willd.
	x cambal=hau	<i>Dorstenia contrajerva</i> L.
	x bolom=x al	air pine <i>Tillandsia streptophylla</i> Schweidw.
	ix nix=che	sea grape <i>Cocoloba uvifera</i> (L.) Jacq.
	x om=ak	<i>Gouania lupuloides</i> (L.) Urb.
	x ta=canil	wild grape <i>Cissus sicyoides</i> L.
	x tzotzel=ak	<i>Merrenia dissecta</i> (Jacq.) Hallier f.

Our systematic collection of botanical terms based on voucher specimens has also documented the strong relationship between the Modern cognate of ix and monolexemic botanical terms and the even stronger relationship between this noun classifier and compound terms for plants (V. Bricker et al. 1998:320–328). Our botanical database for Hocaba is also large enough that it is possible to identify phonological processes that may account for the absence of š in some botanical terms.

Table 8-1 shows that monolexemic nouns represent 31 percent (N = 127) of the total sample of botanical terms and that only 21 percent (N = 27) of the 127 monolexemic nouns in the sample co-occur with either š (N = 24) or h (N = 3). On the other hand, nominal compounds constitute 64 percent of the total sample (N = 260), of which 64 percent (N = 167) co-occur with either š (N = 164) or h (N = 3). Clearly, h co-occurs only rarely with both monolexemic and compound nouns, with only six examples in 387 botanical terms, and compounds are more than twice as likely as monolexemic nouns to co-occur with š (64 percent versus 31 percent). This suggests that š has become the marker of compound plant terms in Modern Yucatec.

In this large database of 405 botanical terms, none of the terms beginning with [š] (N = 40) or [s] (N = 21) co-occur with š because [š] is routinely deleted when followed by another fricative (see 2.2.1.3. in Chapter 3). This phonological process accounts for the absence of š in 61 botanical terms, which represents 15 percent of the total.

Table 8-1. Botanical terms in the Hocaba Dialect of Modern Yucatec.

	+ š	+ h	- h/š	Total
Nouns	24	3	100	127
Noun Compounds	164	3	93	260
Noun Phrases	0	0	18	18
Total	188	6	211	405

Botanical noun phrases do not begin with either h or š:

(108)	<u>Botanical term</u>	<u>Gloss</u>
	y àak' wakaš	<i>Sansevieria hyacinthoides</i> (L.) Druce
	uy òop' ħiimin	<i>Heteropteris beecheyana</i> Juss.
	u čáʔakil k'áaš	<i>Maranta arundinacea</i> L.
	u k'éʔewil ħ'íi'íl čeʔ	<i>Phoradendron quadrangulare</i> (HBK) Krug & Urban; <i>Phoradendron vernicosum</i> Greenm.
	u nal t'èel	<i>Zea mays</i> L.
	u šàanaʔ ʔoʔ	<i>Kallistroemia maxima</i> (L.) Torrey & Gray
	u šiiv čamal k'iin	<i>Passiflora foetida</i> var. <i>gossypiifolia</i> (Desv.) Masters

However, three examples of the 18 noun phrases mentioned in Table 8-1 have embedded expressions beginning with š (š túuluʔ, š táab'ay, and š nùuk):

(109)	<u>Botanical term</u>	<u>Gloss</u>
	u sàandyáah š túuluʔ	<i>Melothria pendula</i> L.; <i>Memordica charantia</i> L.
	u šáačēʔ š táab'ay	<i>Pithecoctenium crucigerum</i> (L.) A. Gentry
	u šóol teʔ š nùuk	<i>Hyptia suaveolens</i> (L.) Poit.

The structure of noun phrases is described in 4. below.

2.6.4. TOPONYMS. Many toponyms are mentioned in Colonial documents. In some cases, they were composed of animal or plant terms, but in others, the referents were features of the landscape, such as sources of water, unusual rock formations, mounds, and other kinds of natural phenomena, such as rainbows.

2.6.4.1. TOPONYMS THAT CO-OCCUR WITH IX. Toponyms can be identified most easily by the locative particles, ti (phonetic [tiʔ]) 'to, at, in, from, for' and te (phonetic [teʔ]) 'there,' that often preceded them in Colonial Yucatec. If the nouns that followed them also co-occurred with ix, then the vowels in both particles assimilated to the vowel in ix, resulting in tix.

Three faunal toponyms in my Colonial Yucatecan sample co-occur with ix:

(110)	<u>Toponym</u>	<u>Gloss</u>
	tix can	place of worms
	tix kokob	place of vipers
	tix mucuy	place of turtledoves

Six botanical toponyms co-occurred with ix in Colonial Yucatec:

(111)	<u>Toponym</u>	<u>Gloss</u>
	tix bal=che	at the <i>Lonchocarpus logistylis</i> Pittier tree
	tix cacau=che	at the cacao tree
	tix cocom	at the vine with yellow flowers
	tix contaci	at the kumquat tree
	tix hun=ɔit kuk	at one sprout
	tix kum=che	at the <i>Jacaratia mexicana</i> DC tree

Not all toponyms that co-occurred with ix in Colonial Yucatec referred to animals or plants:

(112)	<u>Toponym</u>	<u>Gloss</u>
	tix chel	at the rainbow
	tix ualah=tun	at the upright stone

Roys (1957:185–186) lists a number of other toponyms that co-occurred with (i)x that I have not been able to translate and therefore classify. Among them, are two toponyms of undoubted Postconquest date because they are based on Spanish loans:

(113)	<u>Toponym</u>	<u>Gloss</u>
	x caret	inlet (< caleta)
	x noria	draw well (< noria)

The Hocaba dictionary mentions two faunal toponyms that co-occur with š, the cognate of ix, in Modern Yucatec:

(114)	<u>Toponym</u>	<u>Gloss</u>
	š číʔičíʔ	a type of worm
	š k'óʔok'ob'	viper

The first toponym is the name of the hacienda Chichi. The second refers to the town of Tixkokob.

Two botanical toponyms that co-occur with š are also listed in the Hocaba dictionary:

(115)	<u>Toponym</u>	<u>Gloss</u>
	š háʔasijl	banana grove
	š k'aš	<i>Randia longiloba</i> Hemsl.

The suffix, -il, in the first toponym has the same function as the locative particles, tiʔ and teʔ; the toponym refers to the town of X Hazil. The second toponym refers to the town of Tekax.

2.6.4.2. TOPONYMS THAT DO NOT CO-OCCUR WITH IX. Of the many toponyms that did not co-occur with ix, only seven had faunal referents in Colonial Yucatec:

(116)	<u>Toponym</u>	<u>Gloss</u>
	box=chen	well of bass fish
	chic=xulub	devil's flea

so:il	place of bats
te ~ ti cay	place of fish
te coh	place of pumas
te max	place of monkeys
ti tzimin	place of tapirs

Nine botanical toponyms that did not co-occur with ix were introduced by te or ti:

(117)	<u>Toponym</u>	<u>Gloss</u>
	te kanto	at the reed grass
	te max	place of wild chillis
	te pakam	at the cactus
	te ~ ti xan	place of palms
	te ya	at the zapote tree
	ti cul[ul]	at the cactus
	ti haas	at the mamey tree
	ti pox	at the <i>Annona squamosa</i> L.
	ti ppoppox	at the <i>Tragia glanduligera</i> Pax & Hoffman

Two botanical toponyms were marked by -il, instead of being introduced by te or ti:

(118)	<u>Toponym</u>	<u>Gloss</u>
	akil	patch of vines
	kikil	place of rubber tree

And eight botanical toponyms had no special marking for place:

(119)	<u>Toponym</u>	<u>Gloss</u>
	bak=halal	surrounded by reeds
	ɔit=has	a single mamey tree
	ɔit=mop	a single wine palm
	chelem	a type of agave
	ek=balam	<i>Croton miradorensis</i> Muell. Arg.
	kuxbil=ha	water by the annatto tree
	pixoy	<i>Guazama ulmifolia</i> Lam.
	tzuc=op	grove of custard apple trees

Eleven toponyms referred to sources of water:

(120)	<u>Toponym</u>	<u>Gloss</u>
	chočhol=[h]a	stony well
	pach=[h]a	behind the watering place
	panab=[h]a	excavated watering place
	panab=čhen	excavated well
	sah=cab=[h]a	lime-quarry watering place
	tthotbil=[h]a	frog watering place

xel=ha	inlet
xuchbil=[h]a	potable water
y al=cab=[h]a	chachalaca watering place
yax=[h]a	green water
y ok bos	above the bubbling spring

Four toponyms referred to other kinds of landmarks:

(121)	<u>Toponym</u>	<u>Gloss</u>
	čuy=tun	immovable rocks
	na=balam	jaguar lair
	ppus=tunich	hunch-backed stone dwarf
	te ~ ti kal	stone house with masonry roof

Given the stability of toponyms through time, a similar distribution of them across the categories — faunal, botanical, water sources, and landmarks — characterizes them in Modern Yucatec. Faunal toponyms that do not co-occur with š are also poorly represented in the Hocaba dialect of this language:

(122)	<u>Toponym</u>	<u>Gloss</u>
	č'ik=šulub'	devil's flea [name of town: Chicxulub]
	mul=sàay	carpenter-ant hill [name of ranch: Mulsay]
	sayil	place with ants [name of town: Sayil]

Nine botanical toponyms that do not co-occur with š appear in the Hocaba dictionary of Modern Yucatec:

(123)	<u>Toponym</u>	<u>Gloss</u>
	?àak'il	patch of vines [name of town: Akil]
	čak=mul	a type of plant [name of hamlet: Chacmul]
	č'un=huhub'	trunk of Cuban pine <i>Pinus caribaea</i> Morelet [name of town: Chunhuhub]
	č'èelem	a type of agave [name of town: Chelem]
	noh=k'í?ik'	big rubber tree [name of town; Noh Kik]
	piišoy	<i>Guazama ulmifolia</i> Lam. [name of town: Pixoy]
	p'óop'oš	<i>Tragia glanduligera</i> Pax & Hoffman [name of town: Ppoppox]
	síná?an=če?	<i>Alvaradoa amorphoides</i> Liebm. [name of town: Sinaanché]
	te? šá?an	place of palms [name of hacienda: Texan]

Eight toponyms in the Hocaba dictionary of Modern Yucatec refer to sources of water:

(124)	<u>Toponym</u>	<u>Gloss</u>
	b'olon=č'é?en	nine wells [name of town: Bolonchén]
	čan=k'òom	little hollow [name of town: Chan Kom]
	č'óoč'ol=[h]a?	stony watering place [name of town: Chocholá]
	hó?ol=ka?	stone pond for chickens and pigs [name of town: Holcá]
	páanab'=[h]a?	excavated watering place [name of town: Panabá]
	sah=kab'=[h]a?	lime-quarry watering place [name of town: Sahcabá]

šel=ha?	inlet [name of inlet in Quintana Roo: Xelhá]
y óok' ǵ'onó?ot	above the sinkhole [name of town: Yokdzonot]

Five toponyms in the Hocaba dictionary of Modern Yucatec mention stone landmarks:

(125)	<u>Toponym</u>	<u>Gloss</u>
	b'u?=tun	rocky field [name of ranch: Butún]
	ǵ'íib'il čaal=tun	inscribed stone [name of archaeological site north of Merida: Dzibilchaltún]
	h k'àal	stone house with masonry roof [name of town: Tekal or Tikal]
	p'us=tùunič	stone arch [name of town: Ppustunich]
	šú?uk'ub'	marker stone [name of hacienda: Xukú]

2.6.5. NOUN CLASSIFIERS WITH DISEASE TERMS. The noun classifier, (i)x, co-occurred with a few terms for diseases in Colonial Yucatec. Three such terms were mentioned by the eighteenth-century Franciscan grammarian, Beltrán de Santa Rosa María (1746:167–172):

(126)	<u>Disease term</u>	<u>Gloss</u>
	ix kulim=caan	nosebleed
	ix mumuuz	hemorrhoids
	ix thuch=kak	easily cured pox

Four other terms for diseases that co-occurred with (i)x appear in the Book of Chilam Balam of Kaua (V. Bricker and Miram 2002):

(127)	<u>Disease term</u>	<u>Gloss</u>
	x ca=muk olal	irritability
	x muo	twitching
	ix nach=bac=coc	phthisis, tuberculosis
	x tuu=tamnel	rotten liver

x muo (phonetic [š mùuǵ]) serves as the name of the touch-sensitive plant, *Mimosa pudica* L., in Modern Yucatec (V. Bricker et al. 1998:187).

The occasional co-occurrence of š with disease terms is also documented in the Hocaba dictionary of Modern Yucatec:

(128)	<u>Disease term</u>	<u>Gloss</u>
	š ?ée?=péeǵ'	measles
	š kam=pàač	backache
	š kok=sé?en	dry cough

3. NOMINAL COMPOUNDS

The most common types of nominal compounds in Colonial Yucatec contain two nouns or an adjective and a noun.

3.1. DOUBLE NOUN COMPOUNDS. Most of the noun-plus-noun compounds contain two common nouns:

(129)	<u>First Noun</u>	<u>Second Noun</u>	<u>Compound</u>
	akab 'night'	nic 'flower'	ix akab=nic 'night-blooming jasmine'
	al 'woman's child'	mehen 'man's child'	al=mehen 'noble descent'
	atan 'wife'	beel 'road, way'	atan=beel 'marital life [with a wife]'
	baal 'thing, contents'	cah 'town, place'	baal=cah 'world'
	çabim 'weasel'	be 'road'	(ah) çabim=be 'lookout, sentinel, spy'
	ɔib 'writing'	kaba 'name'	ɔib=kaba 'signature'
	hool 'head, hair, top'	na 'house'	hol=na 'ridgepole of thatched house from the outside'
	icham 'husband'	beel 'road, way'	icham=beel 'marital life [with a husband]'
	naa 'mother'	cab 'bee'	naa=cab 'queen bee'
	pec 'sound of moving bell or drum'	chac 'rain god'	pec=chac 'thunder'
	tooz 'powder [soot, dust, grain dust]'	haa 'rain, water'	tooz=haa 'drizzle'

Such compounds are also common in the Hocaba dictionary of Modern Yucatec:

(130)	<u>First Noun</u>	<u>Second Noun</u>	<u>Compound</u>
	?áak'ab' 'night'	ç'unú?un 'hummingbird'	?áak'ab'=ç'unú?un 'moth'
	b'ùuç' 'smoke'	?éek' 'star'	š b'uç'=?éek' 'comet'

ǵiimin 'horse'	k'áak' 'flame, fire'	ǵiimin=k'áak' 'train'
ʔiis 'sweet potato'	tuk' ' <i>Acrocomia mexicana</i> Karw. ex Wart.'	š ʔiis=tuk' 'palm fruit'
mayak 'table'	tùun 'stone'	mayak=tùun 'stone table used for slaughtering pigs'
mùuk' 'strength'	yàah 'pain'	muk'=yah 'suffering'
naʔ 'mother'	kéeh 'deer'	š naʔ=kéeh 'doe'
šiiib' 'male, man'	pàal 'infant, child, minor'	šíʔi=pal 'boy'
šùuš 'wasp'	k'áak' 'flame, fire'	šuš=k'áak' 'pox'

The relational noun, *et* (phonetic [ʔéet]), also served as the first element in nominal compounds in Colonial Yucatec, where it had the same function as the prefix, "co-," in English:

(131)	Nominal		
	<u>Root</u>	<u>Gloss</u>	<u>Compound</u>
	baxal	toy, game	et=ah-baxalil
	chup	woman, female	et=chuplalil
	kik	blood	et=kikelil
	uinic	man, woman	et=uinicil
	xib	male, man	et=xibal
			<u>Gloss</u>
			companion in games or pleasure
			female companion (of a woman)
			consanguine
			fellow being, neighbor
			concubine, competitor

Two of these compounds have cognates in Modern Yucatec:

(132)	Colonial		Modern	
	<u>Yucatec</u>	<u>Gloss</u>	<u>Yucatec</u>	<u>Gloss</u>
	et=chuplil	female companion (of a woman)	ʔéet=š-č'úupil	female companion
	et=xibal	concubine, competitor	ʔéet=šiiib'il	companion, friend

3.2. ADJECTIVE-PLUS-NOUN COMPOUNDS. Many nominal compounds in Colonial Yucatec contained an adjective followed by a common noun:

(133)	<u>Adjective</u>	<u>Noun</u>	<u>Compound</u>
	çac 'white'	be 'road'	çac=be 'highway'
	çac 'white'	taau 'lead'	çac=tau 'tin'
	çaç 'clear'	cab 'land, world; town, region'	çaç=cab 'dawn'
	tzolan 'in order'	cuxtal 'life'	tzolan=cuxtal 'way of life'
	chac great, very, much'	bac 'bone'	chac=bac 'thigh, long bone'
	kan 'yellow'	heel 'egg'	kan=heel 'egg yolk'
	kux 'painful'	co 'tooth'	kux=co 'toothache'
	mul 'together, communal'	tumut 'plan, advice'	mul=tumut 'joint agreement, decision'
	pah 'imagined, presumed'	al 'woman's son or daughter'	pah=al 'fictive son or daughter'
	toh 'straight, direct'	olal 'will, desire'	toh=olal 'health'

Similar compounds are documented in the Hocaba dictionary of Modern Yucatec:

(134)	<u>Adjective</u>	<u>Noun</u>	<u>Compound</u>
	b'ùuy 'dry, hard'	b'ak' 'meat'	b'uy=b'ak' 'scar'
	čan 'little'	pàal 'infant, child, minor'	čàam=b'al 'baby, child'
	š čukul 'rapid'	t'àan 'speech, word'	š čukul=t'àan 'rapid speech'
	č'uhuk 'sweet'	wiış 'urine'	č'uhuk=wiiş 'diabetes'

mahàan 'borrowed'	yùum 'father'	mahan=yùum 'stepfather'
noh 'principal'	b'eh 'road, way'	noh=b'eh 'main road, highway, avenue'
p'èeš 'small'	wíinik 'man'	p'eš=wíinik 'midget, dwarf'
sak 'white; false'	túuš 'dimple'	sak=tuš 'dent corn'
sáas 'clear'	tùun 'stone'	sáas=tùun 'crystal ball'
tòoh 'straight, direct'	?óolal 'will, desire'	tòoh=?óolal 'health'
yáaš 'first, prior'	k'in 'day, season'	yáaš=k'in 'spring [March, April, May]'

4. NOMINAL PHRASES

Nominal phrases composed of two nouns can be distinguished from nominal compounds based on the same nouns in terms of whether the second noun is inflected for possession with a clitic pronoun. For example, the Calepino de Motul contains examples of a nominal compound and a phrase based on the nouns, moc 'knot' and bac 'bone,' which together mean 'joint':

(135a) v moc=bacil in kab y etel voc
'the joints of my hands and my feet' (Ciudad Real 1600?: fol. 306v)

(135b) v moc in bacel
'my joints [literally, the knot of my bone]' (Ciudad Real 1600?: fol. 306v)

In (135a), the nouns in the compound (moc=bac) are possessed as a unit, with the possessive clitic particle, v, and the nominal suffix, -il, referring to the compound as a whole, whereas in (135b), each noun has a clitic pronoun, v moc and in bacel, the suffix in bac-el serving as the one appropriate for bac.

Another minimal pair, contrasting the constituents of a compound with those of a phrase, is based on the nouns, chun 'base, origin' and tñan 'word, language, speech,' which together mean 'leader, elder, chief, prelate':

(136a) payal=tetex v chun=tñanob
'invite the elders!' (Ciudad Real 1600?: fol. 360v)

(136b) he cuch=teelbil v cahe v nah v tzicib v chun v tñan
'as for the subject town here, it should obey its chief' (Ciudad Real 1600?: fol. 87v)

- (136c) v chun ca t̃han Juan
 'John is our leader' (Ciudad Real 1600?: fol. 149r)

In (136a), the nouns in the compound (chun=t̃han) are possessed as a unit, with the possessive clitic pronoun, v, and the plural suffix, -ob, referring to the compound as a whole. In contrast, in (136b–c), each noun in the phrase has a clitic pronoun: v chun and v t̃han or ca t̃han.

For the same reason, reflexive and reciprocal constructions, like v bal v ba 'his possessions' and v ba tan ba 'each other,' are also nominal phrases (see 1.2.3. above).

However, only the first noun in some double-noun phrases is inflected for possession with a clitic pronoun:

- (137a) nuppan v mac v cuchil̃ çabac
 'the inkwell is covered' (Ciudad Real 1600?: fol. 339v)
- (137b) y otoh çinic
 'the anthill [literally, the home of ants]' (Ciudad Real 1600?: fol. 352r)
- (137c) y otoh tzimin
 'the stable [literally, the home of horses]' (Ciudad Real 1600?: fol. 352r)

The second noun is semantically the possessor in these cases, and for this reason the groups of nouns can be classified as phrases.

Comparable examples appear in the Hocaba dictionary of Modern Yucatec. First of all, the nominal phrase, k'îin k'àab'a? 'birthday,' composed of k'îin 'day' and k'àaab'a? 'name,' can be compared with the nominal compound, k'îin=k'uh 'principal day of festival,' composed of k'îin 'day' and k'uh 'God, saint':

- (138a) u k'îin in k'àab'a?
 'my birthday [literally, the day of my name]' (V. Bricker et al. 1998:153)
- (138b) u k'îin=k'uhil̃
 'the holy day' (V. Bricker et al. 1998:153)

Other examples of nominal phrases in Modern Yucatec include:

- (139a) má? k'ohá?anečí? čéen u ç'i? aw óol
 'you're not sick; it's only your imagination' (V. Bricker et al. 1998:50)
- (139b) u b'á?al u b'ah
 'his property' (V. Bricker et al. 1998:26)
- (139c) t in manah hun p'éel u lèekil̃ wàah
 'I bought one tortilla gourd' (V. Bricker et al. 1998:167)

It is not clear whether Colonial Yucatec also had adjective-plus-noun phrases because of the difficulty of distinguishing them from similarly structured compounds. The Hocaba dictionary contains only one possible example of such a nominal phrase, čowak ?ič'ak 'thief,' in the following sentence:

- (140) kaláant a b'ah tî? šípalo? čowak uy íič'ak
 'look out for that boy! he's a thief [literally, long are his fingernails]!' (V. Bricker et al. 1998:11)

5. SUMMARY OF CHANGES IN NOUNS THROUGH TIME

Contact with Spanish culture has resulted in a significant loss of Maya kin terms, undoubtedly because of the replacement of the original double-descent system by the bilateral descent system of the Spanish conquerors. Only for relatives in Ego's generation is the original set of kin terms still intact.

The noun classifiers, *ah* and *ix*, that also functioned as markers of male (*ah*) and female (*ix*) gender in Colonial Yucatec, have been reduced to *h* and *š*, respectively in Modern Yucatec. Instrumental nouns co-occurred with neither classifier in Colonial Yucatec but are now classified by *š* in Modern Yucatec. On the other hand, agentive nouns that were marked by *-nal* and classified by *ah* in Colonial Yucatec co-occur with neither *h* nor *š* in Modern Yucatec.

Colonial Yucatec used *ba* 'self' in both reflexive and reciprocal constructions. Only the reflexive use has survived in Modern Yucatec. The agentive suffix, *-yah*, in Colonial Yucatec does not occur in Modern Yucatec. On the other hand, Modern Yucatec marks abstract and partitive nouns with different suffixes, whereas Colonial Yucatec used the same suffix for both.

NOTES

1. The intervening consonant is *-l-*, not *-h-*, in Mopan (Hofling 2011:26).
2. When *-il* is suffixed to the names of domesticated plants in Modern Yucatec, it marks them as cultivated in one's own garden, contrasting with those that are purchased, which take no suffix when they are possessed: *im p'àakil* 'my tomato (cultivated)' versus *im p'àak* 'my tomato (purchased)' (V. Bricker et al. 1998:360).
3. The parentheses around a classifier in this and other examples in this chapter indicate that its use is optional.
4. According to Hofling (2008:4–6), the use of *ah* and *ix* as noun classifiers with faunal and botanical terms is much more robust in Mopan than in the other Yucatecan languages, suggesting that the use of these classifiers may have been more widespread in Proto-Yucatecan than it was in Colonial Yucatec.

CHAPTER 9

NUMBERS AND NUMERAL CLASSIFIERS

The Precolumbian Maya had a vigesimal number system that was used in a sophisticated system of time reckoning extending thousands of years into the future and millions of years into the past (V. Bricker and H. Bricker 2015; Stuart 2011), significant elements of which were still in use during the first half of the sixteenth century, when the Spaniards arrived in the Yucatan peninsula. Numbers could not be used alone for quantifying nouns; another word known as a “numeral classifier” was placed between the two words (or substituted for the noun altogether). A number of numeral classifier phrases served as temporal and spatial adverbs in Colonial Yucatec, thereby compensating for the lack of an adverbial form class in this language.

1. NUMBER WORDS

The words for the number from one to eleven were monomorphemic in Colonial Yucatec:

- (1) hun ‘one’
 ca ~ caa ~ cab ‘two’
 ox ‘three’
 can ‘four’
 ho ‘five’
 vac ~ uac ‘six’
 vuc ~ uuc ‘seven’
 vaxac ~ uaxac ‘eight’
 bolon ‘nine’
 lahun ‘ten’
 buluc ‘eleven’

The numbers from twelve through nineteen were formed by combining all or part of lahun ‘ten’ with the words for the numbers from two through nine:

- (2) lah=ca ~ lah=cab ‘twelve’
 ox=lahun ‘thirteen’
 can=lahun ‘fourteen’
 ho=lahun ~ ho=lhun ‘fifteen’

vac=lahun ~ uac=lahun 'sixteen'
 vuc=lahun ~ uuc=lahun 'seventeen'
 vaxac=lahun ~ uaxac=lahun 'eighteen'
 bolon=lahun ~ bolon=hun 'nineteen'

All of the numbers from one to nineteen are well represented in Colonial documents.

The vigesimal element in the Yucatecan number system begins with the name for twenty, *hun kal* (literally, 'one twenty'). Multiples of this number were formed by combining the words for the numbers from two through nineteen with *kal*:

- (3) hun kal 'twenty'
 ca kal 'forty'
 ox kal 'sixty'
 can kal 'eighty'
 ho kal 'one hundred'
 et cetera

The next higher-order number in this system was *hun bak* (literally, 'one 400'). And *hun pic* referred to 'eight thousand' (20 x 400). Both *bak* and *pic* appear in Colonial documents.

The words for the numbers from twenty one through thirty are well represented in Colonial documents (except for the accidental gap of the missing twenty seven):

- (4) *hun tu kal* 'twenty one'
 ca tu kal 'twenty two'
 ox tu kal 'twenty three'
 can tu kal 'twenty four'
 ho tu kal ~ *ho tuc kal* 'twenty five'
 vac tu kal ~ *uac tu kal* 'twenty six'
 **vuc tu kal* ~ **uuc tu kal* 'twenty seven'
 vaxac tu kal ~ *uaxac tu kal* 'twenty eight'
 bolon tu kal 'twenty nine'
 lahun ca kal 'thirty'

The status of *tu* in *hun tu kal* and the other numbers below thirty is unclear. It could represent *t u* 'in its,' implying that the numbers from one through nine are "in twenty," that is, in the first score. On the other hand, the presence of *tuc* in *ho tuc kal* suggests that what lies between the first and the third number is a particle whose final consonant has been deleted in the other number terms in order to reduce the consonant cluster resulting from the juxtaposition of *tuc* and *kal*.

It should be noted that *tu* was the element of choice in hieroglyphic spellings of the numbers between twenty and forty on pages D.25 to D. 28 of the Dresden Codex, a Precolumbian Maya manuscript (Figure 9-1). But there, too, the presence of *tu* instead of *tuc* could have represented the implementation of a phonological process for reducing a cluster of two velar consonants to one.

Another seeming anomaly in the data set in (4) is that "thirty" is represented by *lahun cakal*, instead of *lahun tu kal*. This was a regular pattern in Yucatecan Maya, both during the Colonial period and afterward as late as 1851. In other words, the numbers between twenty and thirty-one represent two principles of counting: (1) overcounting on the current score (with the *tu/tuc* particle) and (2) anticipatory counting on

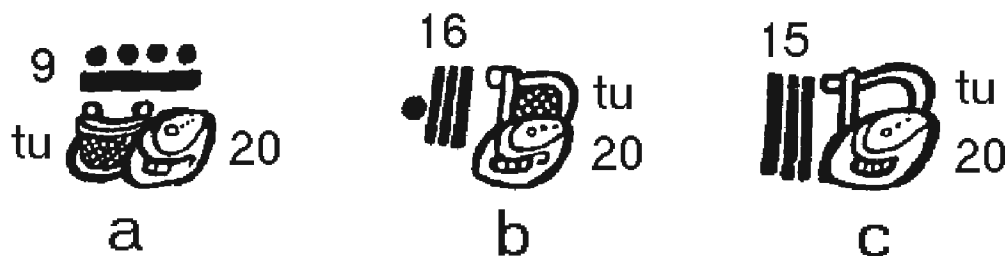


Figure 9-1. Hieroglyphic Spellings of Numbers Between “20” and “40” on Pages 26c-28c of the Dresden Codex. a. “29.” b. “36.” c. “35.” After Villacorta C. and Villacorta (1976:62, 64, 66).

the next score (“ten toward forty” instead of “ten plus twenty”). The same is true of the expression for “fifty,” which was lahu[n] y ox kal ‘ten toward sixty,’ instead of lahu[n] tu(c) ca kal ‘ten plus forty.’

There are no examples of the numbers between thirty and forty in my documentary database, nor, except for the lahu y ox kal example mentioned above, of the intervening numbers for scores above forty. Page 153 of the grammar published by Pedro Beltrán de Santa Rosa María in 1746 lists holhu ca kal ‘fifteen toward forty’ as the equivalent of “thirty-five.” There are, then, two examples of anticipatory counting in the numbers from twenty to forty, both of which fall during the second half of the score. They, plus the use of *tuc* in *ho tuc kal*, mark the quarter points of the score (25, 30, 35). The remaining numbers in the score employ simple overcounting on the twenty base.

This pattern of marking the quarter points of the score is consistent with the attention paid to the quarter points of the *katun* (a contraction of *kal tun* ‘20 tuns’) in Precolumbian times. The *tun* of 360 days was one of the building blocks of the Classic Maya calendar. The *ka(l)tun* composed of twenty *tuns* was divided into five-*tun* quarters, at the end of which commemorative stelae were erected. It is probably no accident that this quadripartite division of the twenty-*tun* period is echoed in the terms for the numbers of which the score is composed.

Anticipatory counting also employed words referring to “half” (*tancoch* and *xel*) in Colonial Yucatec:

- (5a) *tancoch* t u ca ppe_l lub
‘one and one-half leagues [literally, one half in the second league]’ (Ciudad Real 1600?: fol. 411v)
- (5b) *tancoch* t uy ox ppe_l lub
‘two and one-half leagues [literally, one half in the third league]’ (Ciudad Real 1600?: fol. 411v)
- (5c) *xel* v ca cuch
‘one and one-half loads [literally, one half is its second load]’ (Ciudad Real 1600?: fol. 456v)¹

Anticipatory counting could also involve less than one half the distance between one league and the next:

- (5d) yan t u ca lub
‘there is a little more than one league [literally, it exists in the second league]’ Ciudad Real 1600?: fol. 215v)
- (5e) yan t uy ox lub
‘there is a little more than two leagues [literally, it exists in the third league]’ (Ciudad Real 1600?: fol. 215v)

The phrases in (5a–e) also show that ordinal numbers were constructed by prefixing the third-person possessive pronoun to the number: *u* before consonant-initial numbers (*t u ca ppe*l in [5a], *u ca* cuch in [5c], and *t u ca* lub in [5d]) and (*u*)*y* before vowel-initial numbers (*uy ox ppe*l in [5b] and *t uy ox* lub in [5e]).

During the Colonial period, the Maya terms for numbers were gradually replaced by the Spanish ones. This is particularly evident in the dates with which Maya documents began or ended. Most of the dated sixteenth-century documents in my possession referred to dates in the European month with Maya numbers:

- (6a) *t u cahal Mani t u hol=hun piz v kinil v agosto*
 ‘on the fifteenth count of the day of the month of August
- y chil y aabil de mil y quinientos y cincuenta y siete años*
 in the year of 1557 years’ (MA557-001A-C)
- (6b) *hele t u vac=lahun ppiz v kinil v marzo de 1569 años hab*
 ‘today, on the sixteenth count of the day of the month of March of 1569 years year’ (DZ569-001)
- (6c) *t u uaxac [p]pel v kinil v octubre 1590 años*
 ‘on the eighth day of the month of October, 1590 years’ (TK590A-003A-B)
- (6d) *heleac t u bolon pis u kinil u octubre de 1590 años*
 ‘today, on the ninth count of the days of the month of October of 1590 years’ (TK590C-201A-C)
- (6e) *t u cahal Mani t u lahun ca kal u kinil uy uil mayo*
 ‘in the town of Mani on the thirtieth day of the month of May
- y chil y abil de mil quinientos noventa y seis años*
 in the year of 1596 years’ (SB596A-001A-E)

However, by the end of that century, there were already documents in which the entire date was written in Spanish:

- (7a) *helel en dies y seis de março de mil cinientos y nobenta y sinco años*
 ‘today on the sixteenth of March of 1595 years’ (OX595-041A-C)
- (7b) *a 18 dias del mes de o(c)tubre 1593 años*
 ‘on eighteen days of the month of October, 1593 years’ (DZ593A-024A-B)

Nevertheless, Maya numbers continued to be used in other domains, such as measuring land, commercial transactions, and agriculture well into the eighteenth century and to some degree in the nineteenth century:²

- (8a) *ca ti joci v kamicob ho tuc kal peso alcaldes y. regidores*
 ‘and the magistrates and town councilmen finished receiving twenty five pesos’ (MA733E-540A-C)
- (8b) *y u hoch-ciob ho tu kal huhun tul tiob*
 ‘and each one of them rasped twenty five henequen leaves’ (HB784B-117A-B)

- (8c) bay xan ti nohol lae vuc ppel v ho kalil v sapal ca tac can tu kal
 ‘thus also in the south: seven are the one hundred of its fathoms plus twenty four’ (PS791A-022A-C)
- (8d) t u ox tu kal u xocol u kinil y uil ... habil mil setesientos sesenta y seis
 ‘on the twenty third of the count of the month ... year, 1776’ (XIU766B)
- (8e) u buluc ppel multun c̣hich lum
 ‘the eleventh mound is on gravelly land’ (EBT833A)

However, ultimately the Spanish numbers replaced the Maya numbers in those domains as well, so that, by 1970, when I taught my first course in Spoken Yucatecan Maya at Tulane, only the numbers—hun ‘one,’ káʔah ‘two,’ and ʔòš ‘three’—were still in common use in most towns in the Yucatan peninsula. A few towns still used kàan ‘four,’ and even fewer used hóʔoh ‘five.’ Only local savants knew about the use of wáak ‘six,’ wúuk ‘seven,’ wašak ‘eight,’ b’olon ‘nine,’ lahun ‘ten,’ and k’áal ‘twenty’; it is for this reason that we were able to include these terms in the Hocaba dictionary (V. Bricker et al. 1998).

2. NUMERAL CLASSIFIERS

The earliest, and most comprehensive work on numeral classifiers was carried out by Helga-Maria Miram in the towns of Tinum and Pixoy near Ebtun between 1976 and 1980. Her book contains a description of 225 numeral classifiers that she elicited in Pixoy (Miram 1983). The 230 numeral classifiers used today in Hocaba are included in V. Bricker et al. (1998).³

The Calepino de Motul (Ciudad Real 1600?) is the best source of numeral classifiers in Colonial Yucatec. Many of them are not treated as head words, but are listed as compounds with hun ‘one’ on folios 196r-202r in that work. Others appear as head words and/or in example sentences elsewhere in the Calepino.

2.1. THE STRUCTURE OF NUMERAL CLASSIFIER PHRASES. Numeral classifiers are bound to numerals in quantifier expressions.⁴ Unlike English (or Spanish), where it is acceptable to say “one man” (or *un hombre*), the noun that is quantified could not immediately follow the Maya numeral in Colonial Yucatec, and the same is true of Modern Yucatec. Another word, known as the “numeral classifier,” must be placed between the two words. Thus *can vinic was not a grammatically correct translation of “four men” in Colonial Yucatec, nor is *kàan wíinik a possible translation of this expression in Modern Yucatec. A numeral classifier, *tul* in Colonial Yucatec and its cognate *túul* in Modern Yucatec, must follow the number, yielding *can tul vinic* (in the former) and *kàan túul wíinik* (in the latter). And because the semantic component of this numeral classifier is “animate,” it can be used for animals as well as people, as in *ox tul pek* (Colonial) or *ʔòš túul pèek’* (Modern) ‘three dogs.’ Plants have their own numeral classifier (*cul* or *kúul*), because even though they are also alive, they are inanimate: *hun cul copo* (Colonial) or *hun kúul kóopoʔ* (Modern) ‘one ficus tree.’

Not only can some numeral classifiers quantify more than one kind of noun, but some nouns can be quantified by more than one numeral classifier. The noun, *háʔas* ‘banana’ can appear in phrases with at least seven numeral classifiers in Modern Yucatec:

- (9) ǵ’íit (referring to the elongated shape of the banana)
 b’áab’ (referring to an entire stem of bananas)
 múuč (referring to a cluster of four or more bananas)
 šóot’ (referring to a chunk of banana)

- šéet' (referring to a torn piece of banana)
 kùup (referring to a slice of banana)
 táah (referring to a slab of banana)
 níič' (referring to a bite of banana)

The fine discriminations made by these numeral classifiers permit the speaker to state very precisely which aspect of the banana is intended. In this respect, numeral classifiers have a qualifying or adjectival function in the language.

The examples in (9) suggest three general categories into which numeral classifiers can be grouped: shape (elongated), aggregates of wholes (stem, cluster), and portions of wholes (chunk, torn piece, slice, slab, bite) (these categories come from Lucy [1992:49, Table 9]). Other shapes implied by numeral classifiers in Modern Yucatec include:

- (10) ǵ'úuk 'lump [dough, mud]'
 ǵ'òot 'twist'
 kòoǵ' 'roll'
 kóop 'coil'
 k'oʔ 'loop [of rope]'
 méʔet 'trivet, circular base, stand'
 mòok 'knot'
 pùuk' 'ball'
 wóol 'ball, circle'

Other numeral classifiers that refer to aggregates of wholes in Modern Yucatec besides those listed in (9) include:

- (11) ʔóok 'clutch [of eggs]'
 b'anab' 'flock or herd'
 ǵ'áan ~ ǵ'áam 'pair'
 ǵ'àap ~ ǵ'áap ~ ǵ'apab' 'stack'
 čáač 'handful [of paper]'
 čóoh 'cluster'
 k'áaš 'tied bundle [of green beans]'
 méek' 'armful'
 p'óoč 'bunch, cluster'

Still other numeral classifiers refer to portions of wholes, in addition to those listed in (9):

- (12) b'àab' 'piece [continuous]'
 b'úuh 'half'
 ǵ'éeh 'sliver'
 ǵ'íil 'shred'
 ǵ'úuk 'lump, fragment; small pile [of shreds]'
 ǵ'éeh 'chip [glass]'
 hàaǵ' 'part, group, division'
 háap' 'chip'
 háat 'piece [torn carefully]'

háaw 'half [of gourd or melon]'
 héek' 'branch'
 híil 'strand'
 káač 'sliver, splinter'
 kóoŋ 'piece [of rope]'
 p'áay 'shred, crumb'
 p'éeh 'chip'
 p'íik 'joint (finger), addition, storey (house [not counting base])'
 p'úuy 'chip, shred, fragment'
 šúʔuk' 'subdivision of *mecate*'
 táankuč 'half'
 t'áah 'drop, bit'

A number of numeral classifiers are concerned with measurement of one kind or another:

- (13) ʔáak 'lot [of land]'
 ʔáawtil 'half a league shouting distance'
 biiš 'eight-day period, week'
 ǵ'áak 'twenty square meters; unit of work'
 k'àan '*mecate* [twenty square meters]'
 lúub' 'league [ca. four kilometers]'
 mùut 'measure [of grain]'
 náab' 'handspan'
 píiš 'knee-high'
 p'iis 'load, measure [corn, beans, rice]'
 p'íit 'bit'
 p'úʔuk 'mouthful'
 sáap 'fathom'
 súutuk 'moment'
 šáak'ab' 'pace, step, leap'
 t'úuč 'moment'
 wùuǵ' 'measure [1/4 *almud*]; kilogram'

The same categories of numeral classifiers existed in Colonial Yucatec, with examples in the *Calepino de Motul* and notarial documents. The most common numeral classifier used for enumerating the day of the month was *piz* or *pis* (as in [6a] and [6d]), which was sometimes misspelled as *ppiz* (as in [6b]). For measuring land, Colonial scribes used *sap* or *sapal* 'fathom' (as in [8c]).

For counting trees, they used either *cul* or *xec*:

- (14a) can xec v cheel haaz v tiyal cuchi
 'four were his banana trees that belonged to him then' (DZ587A-027A-B)

- (14b) bay xan uaxac xec ox t ʔah ti Maria Camal
 'thus also, eight were the breadnut trees that we gave to María Camal

y hun cul copo y hun xec luch y ho cul xan
 and one fig tree, and one calabash tree, and five palm trees' (EBT812C)

And for counting people and animals, they used *tul*:

- (15a) *yan ix vixinob ox tul c̣huplalog Mensia Pox M^a Pox Beatriz Pox*
 ‘and there are my younger sisters, three women: Mensia Pox, María Pox, and Beatrice Pox’
 (DZ587A-015A-E)

- (15b) *uaxac tul tzimin c u tzentabal t u men ca tulili h semanaob*
 ‘eight horses are fed by only two weekly workers’ (HB784C-217B-D)

There was another general numeral classifier besides *cul* and *tul* that could be used for quantifying objects that were neither animate nor plants, namely *ppel* (phonetic [p'éel]). In notarial documents, it co-occurs with references to days and years, as in (6c) and (16) below:

- (16) *lic ix c alic v hahil hi bicil v uuc [p]pel haab ho[p]poc v meyahtabal t u men Ju^a Uc*
 ‘and we say the truth how seven years ago, he began to be served by Juana Uc’ (XIU688B)

It was also used for referring to mounds encountered during land surveys, as in (8e) and (17a–b) below:

- (17a) *ca kuchuc t uy ox ppel alcab multun t kancab*
 ‘when he might arrive at the third running mound in red soil’ (EBT787A)
- (17b) *ca tun xic ti xaman t u can [p]pel noh multun t u nak v solar ah camal*
 ‘and then it might go to the north of the fourth great mound beside the house plot of the Camal people’ (EBT813A)

But its principal use during the Colonial period was for quantifying nouns of Spanish origin, especially those referring to coins (*peso*, *tomin*, *toston*), measures (*almud*, *arroba*, *limeta*), legal documents (*conosimiento*), and household objects (*banco* ‘bench,’ *bara* ‘staff,’ *botijuela* ‘small jar,’ *caja* ‘chest,’ *cajuela* ‘small box,’ *cama* ‘bed,’ *carreta* ‘cart,’ *cuchara* ‘spoon,’ *mesa* ‘table,’ *plato* ‘plate,’ *puerta* ‘door,’ *silla* ‘chair’):

- (18a) *c alic u hahil bicil c u yantal c ɔaic lai conosimiento ti yn yum batab Dⁿ Pablo Balam*
 ‘we say the truth how we give this bill to my father, the leader, Don Pablo Balam;

u hahil bicil t u habil 92 t u manah hun ppel kax ti al=mexen Manuel Ek
 it is true how in the year [17]92, he bought one forest from the noble, Manuel Ek,

y oklal ho ppel toxtones 20 rrs
 for five tostones and twenty reales’ (KAN813C)

- (18b) *c in chicantal vay ti audiencia in ɔae hun ppel v conosimientoil*
 ‘I appear here in the town hall that I might give a bill of sale

hun xet[h] solar ti almehen Lorenzo Camal
 for one piece of a house lot to the noble, Lorenzo Camal’ (EBT813D)

- (18c) *lic ix yn ɔayic hun ppel v pueltayl v hol na t inv atan Clara Ake*
 ‘and I give one door, the door, to my wife, Clara Ake’ (TK725A)

- (18d) bay xan c in ðayc hun [p]pel caja t inv al Mª Balam
 'thus also, I give one chest to my daughter María Balam' (TK734B)

However, the example of hun xeth solar 'one piece of a house lot' in (18b) suggests that solar 'house lot' (also spelled soral and solal) was one Spanish loan that could co-occur with numeral classifiers other than ppel. It occurred most frequently with ac, but there are also occasional examples of its use with pet and ppel:

- (19a) bay xan yan hun ac yn solar c i[n] kubic ti yn mehen Gregorio Chan
 'thus also, there is one house lot of mine that I transferred to my son, Gregorio Chan' (PS802-008A-C)
- (19b) hun pet solal vay lae v tial in mejen Juº Ek
 'one house lot here belongs to my son, Juan Ek' (TK661-048-049)
- (19c) bay xan hun ppel solar y u chenil yn matan t in yum lae
 'thus also, one house lot with its well is my gift from my father' (IXL766Z)

2.2. NUMERAL CLASSIFIERS AS SURROGATE ADVERBS IN COLONIAL YUCATEC. An unusual characteristic of a number of numeral classifiers is that they can only co-occur with the number, hun 'one.' This is the reason why so many numeral classifiers are listed only as part of compound expressions with hun 'one' on the thirteen pages running from folio 196r through 202r in the Calepino de Motul. And the reason why their use with numbers is limited to hun 'one' is that they have a special idiomatic function as temporal adverbs that other numeral classifiers lack. Some examples of these special-purpose numeral classifier expressions are listed in (20) below:

- (20) hun=bak 'jointly, together'
 hun=bel 'increasing day by day; while'
 hun=bul 'continuously'
 hun=cet 'equal, jointly, together, equally'
 hun=çut 'at one point, in one moment or instant, immediately'
 hun=tzol 'in order, in a row'
 hun=tzac 'apart, aside'
 hun=hol 'straight, directly, without deviating to one side or the other'
 hun=hom 'on the dot, very promptly'
 hun=yalili 'superficial, skin deep'
 hun=yuk 'general, universal; generally, universally'
 hun=kalab 'all, entire'
 hun=kub 'alone [without companions]; fitting exactly [without room for anything else]'
 hun=kul 'perpetual, eternal, everlasting, forever'
 hun=mac 'full'
 hun=moçonili 'rapidly [like a whirlwind passes]'
 hun=mol 'together, joined, accumulated, near'
 hun=tacil 'apart, aside, alone'
 hun=tao 'straight, direct, directly without stopping'
 hun=tach 'exactly, promptly, at once'
 hun=tanil 'carefully, diligently'
 hun=thul 'direct, straight, directly'

hun=xicnal 'exactly, promptly, at once'
 ti hun=lukul 'forever'

Some examples of their use as temporal adverbs appear below:

- (21a) hun=bak v tñanob
 'they speak with one voice' (Ciudad Real 1600?: fol. 196r)
- (21b) hun=cet v benelob
 'they go together' (Ciudad Real 1600?: fol. 197r)
- (21c) hun=çut a talel vaye
 'in one moment you will arrive here' (Ciudad Real 1600?: fol. 197v)
- (21d) hun=hol a benel t u beel a col
 'directly you go on the road to your field' (Ciudad Real 1600?: fol. 197v)
- (21e) hun=kul puci
 'he fled forever' (Ciudad Real 1600?: fol. 199r)
- (21f) hun=mol v benelob
 'they go together' (Ciudad Real 1600?: fol. 199v)
- (21g) hun=tñul v benel ti y otoch
 'he goes straight home' (Ciudad Real 1600?: fol. 201v)
- (21h) ti hun=lukul v ppatah
 'he left it forever' (Ciudad Real 1600?: fol. 422r)

An interesting characteristic of the numeral classifier phrases in (21a-h) is that, in every case, they occupy the initial position in the clause. As such, they function as focused adverbials, and, according to Yasugi (2005:65-66), the verbs that follow them should be marked accordingly. That is indeed the case with hun=tao 'straight, direct, directly without stopping' and binel (imperfective), binic (perfective), and binebal in the following sentences drawn from the Chronicle of Chac Xulub Chen and the Documentos de Tabi:

- (22a) ti sutpahaan ti likin
 'it turned to the east;

 hun=tao v binel ti noh be
 it goes straight to the highway' (OX697-015-016)
- (22b) hun=tao binicon ti kax
 'we went directly to the forest' (CHX-587)
- (22c) hun=tao binebal latulah t u hol noh laam ti chikin lae
 'it will go straight until the end of the big depression in the west' (OX683-043A-044B)

As further evidence of their adverbial status, the numeral classifiers in (21a–h) and (22a–c) are not immediately followed by nouns. This is also true of numeral classifiers with temporal and spatial meanings, such as *ten* ‘time(s)’ and *lub* ‘league.’ *ca=ten* ‘twice’ also means ‘again,’ a common adverb in Yucatecan Maya, as in:

- (23a) *ma bay=kin in beeltic t u ca=ten*
 ‘I will never do it again’ (Ciudad Real 1600?: fol. 279r)
- (23b) *babahel in mal vay t u ca=ten*
 ‘a little while from now I will pass by again’ (Ciudad Real 1600?: fol. 38v)

Units of time like *kin* ‘day’ and *haab* ‘year’ could also serve as numeral classifiers without a following noun:

- (24a) *hun=kin ca sihi*
 ‘on one day he was born’ (Bacabs 1779?:83)
- (24b) *hun=kin c u chibal u uich u*
 ‘for one day the face of the moon is bitten’ (Bacabs 1779?:87)
- (24c) *hun=hab kalan ti mascab t u menob*
 ‘for one year he was locked up in jail by them’ (CHX-295A-B)
- (24d) *ox=haab in culic y icnal*
 I lived with him for three years’ (Ciudad Real 1600?: fol. 202v)

So also could numeral classifiers that referred to distance:

- (25a) *vai ti kuchion t u chun v mulil Tabi*
 ‘here we arrived at the base of the wall of Tabi,

ca=lub y okol ca cahal loe
two leagues above our town’ (YT718B-104A-C)
- (25b) *hun=auat hun=lub u talel*
 ‘for one shout, one league he comes’ (Gordon 1913:87)

In other words, although many numeral classifiers directly preceded nouns, those that functioned as temporal or spatial adverbs did not.

On the other hand, when *kin* ‘day’ appeared in a numeral classifier phrase before a noun, it had an adjectival function, as in:

- (26) *lay u chun ca kin xec ca kin ahaulil*
 ‘this is the reason for the two-day seat, the two-day reign’ (Gordon 1913:20)

And, of course, *kin* ‘day’ was also a noun that could itself be quantified with the numeral classifiers, *piz* and *ppel*, in dates, as in (6a–d).

2.3. HISTORICAL CHANGE IN NUMERAL CLASSIFIERS. A comparison of the number of numeral classifiers that are mentioned in the *Calepino de Motul* (166) with the number of numeral classifiers that were still in use during the 1970s and 1980s in Hocaba (230) and Pixoy (225) gives the false impression that they have actually increased in number over time. That is because, unlike modern lexicographers, the compilers of the *Calepino* made no effort to elicit all the numeral classifiers in the Maya lexicon of the late sixteenth century. Most of those that were mentioned do not appear as head words, but show up accidentally in example sentences under other head words.

Many of the numeral classifiers for which evidence is lacking in the *Calepino de Motul* show up in notarial documents and the Books of Chilam Balam of Chumayel and Tizimin, as well as the manuscript known as “The Ritual of the Bacabs.” The Chumayel mentions 88 numeral classifiers, of which 41 are not shared with the *Calepino de Motul*. The Tizimin mentions 62 numeral classifiers, of which 18 are not shared with either the *Calepino* or the Chumayel. And “The Ritual of the Bacabs” refers to 99 numeral classifiers, of which 52 are not shared with the *Calepino* or the two Books of Chilam Balam. There are also 12 numeral classifiers in notarial documents that do not appear in the other Colonial sources. Therefore, to the 166 numeral classifiers that are documented in the *Calepino de Motul* may be added 123 numeral classifiers from these other sources (41 + 18 + 52 + 12), for a grand total of 289 numeral classifiers in Colonial sources.

But these numbers do not tell the whole story of what happened to numeral classifiers in Yucatecan Maya over time. Only 103 of the 289 classifiers in the Colonial sources, or ca 36 percent, have been documented in the Modern dialects of Hocaba and Pixoy. This means that 186 numeral classifiers in the Colonial sources, or ca. 64 percent, were lost over time. Furthermore, 233 numeral classifiers in Hocaba and Pixoy are not shared with each other, nor with Colonial sources. Assuming that the numeral classifiers in Modern Yucatec that are not also attested in Colonial sources were originally present at the beginning of the Colonial period, Colonial Yucatec must have had at least 233 more numeral classifiers than the 289 numeral classifiers that are actually documented in Colonial sources, for a total of 522 numeral classifiers:

- (27) 166 in *Calepino de Motul*
 123 in other Colonial sources
 233 only in Modern Yucatec⁵
 522 in Colonial Yucatec (hypothetical)

It should be noted that this figure—522 numeral classifiers—is similar to the 528 numeral classifiers elicited by Brent Berlin (1968) for the dialect of Tzeltal spoken in Tenejapa in highland Chiapas, Mexico, during the 1960s. What is different is the number of numeral classifiers in the two regions that have survived into recent times: 230 in Hocaba and 225 in Pixoy versus 528 in Tenejapa. Clearly, the rate of loss of numeral classifiers in Yucatecan Maya has been much greater than in Tzeltal.

This discrepancy can be traced to the differential exposure of the two languages to Spanish loan vocabulary. In the 1960s, most of the population of Tenejapa spoke no Spanish (Berlin 1968:19), whereas by 1970, Yucatecan Maya had been heavily influenced by Spanish. In the Tzeltal region, the number system was robust, and it was still possible to count up to 800 in Tzeltal (Kaufman 1971:91–96), whereas in the Yucatan peninsula, only the numbers from one to three or, at most four, or five were still in use (Romero Castillo 1961:658).

Speakers of Yucatecan Maya normally do not use numeral classifiers with Spanish numbers (Blair and Vermont-Salas 1965:61; but see Lucy 1992:51). Therefore, as Spanish loans replaced the Maya terms for numbers, the number of opportunities for using numeral classifiers in the language must have declined. And because numeral classifiers were used less often than in the past, many of them were gradually forgotten and therefore not passed on to the next generation.

In my experience, speakers of Yucatecan Maya who were born during the 1930s used numeral classifiers with great precision, but those born a generation or two later are not able to distinguish šéet 'piece' from šóot 'chunk' and b'áab 'stalk, stem' from múuč 'group.' Their Maya vocabulary is less varied than the vocabulary of earlier generations, and it lacks some of the nuances of earlier varieties of the language.

The impact of this change is most noticeable in the way that p'éel has become the dominant numeral classifier in the language. At the beginning of the Colonial period, the generic numeral classifiers were tul (phonetic [túul]) 'animate,' cul (phonetic [kúul]) 'plant,' and ppel (phonetic [p'éel]) 'thing.' Later in the Colonial period, ppel became the numeral classifier of choice for quantifying nouns of Spanish origin, including those referring to people (see 2.1. above). By the end of the twentieth century, p'éel was competing with túul as the animate classifier for people and animals referred to by Maya nouns, and I have also heard it used for quantifying plants. It seems that, as the traditional numeral classifiers fall by the wayside, p'éel is gradually assuming the role as the all-purpose numeral classifier with the few Maya numbers that are left in the language.

There is one group of numeral classifiers that should have been relatively immune from the losses resulting from the replacement of Maya number words by their Spanish equivalents, namely those that served as surrogate temporal adverbs after the numbers, hun 'one' and ca 'two.' But this is not the case. The possible examples of such constructions that appear in the Hocaba dictionary (V. Bricker et al. 1998) are too few and too heterogeneous in meaning and structure to constitute a coherent semantic class:

- (27) hun=hùul 'identical'
 hum=pakili? 'completely'
 hum=pùul 'all at once, in one motion'
 hum=puli? 'never, ever, forever; at once'
 hum=pùulili? 'completely'
 hum=p'ít 'a little'
 ká?ah=téen 'again'

They should be compared with the examples in (20), which, because they are far more numerous and were grouped together under hun 'one' in the Calepino de Motul, were more easily recognized as having something in common. The ones in (27) are all that remains of what was once a robust category of numeral classifiers that served as temporal adverbs in Colonial Yucatec.

NOTES

1. This is similar to the way that speakers of German refer to the half-hour when telling time:

um halb elf Uhr

'at half-past ten' [literally, at half eleven hour] (Baumann and Klatt 1910:477)

2. The examples in (6a-e) and (8a-e) are consistent with the Maya numbers from one to forty on pages 152-153 of Beltrán de Santa Rosa María's *Arte de la lengua maya ...* (1746). Therefore, the insertion of "ca" before "kal" between angle brackets in the numbers from twenty one through thirty nine on page 263 of René Acuña's edition of Beltrán's grammar (2002) is unlikely to be correct.
3. An earlier treatment of this topic by Moisés Romero Castillo (1961) is based on only 33 numeral classifiers.

4. The interrogative particle, hay 'how many?', is also a bound morpheme, replacing the number in numeral classifier phrases, such as:

hay tul a mehenob

'how many sons do you have?' (Ciudad Real 1600?: fol. 173r)

5. But assumed to have been present in Colonial Yucatec.

CHAPTER 10

ADJECTIVES

Robert Blair (1965:45–46) called adjectives “attributives” and treated them as a subclass of nouns in his grammar of Modern Yucatec. So also did Norman McQuown (1967:242) in his sketch grammar of Colonial Yucatec. Adjectives, like nouns, can serve as stative verbs in equational sentences when they co-occur with pronominal suffixes (as in [9a–b] in 1.2. in Chapter 4). However, unlike nouns, adjectives cannot be inflected for possession with clitic pronouns, and for this reason they are not treated as a subclass of nouns in this grammar.

Adjectives are more difficult to distinguish from adverbial particles in Colonial and Modern Yucatec, which can also function as stative verbs when followed by pronominal suffixes. The most useful criterion for differentiating them is syntactic, not morphological: only adjectives can modify nouns, whereas particles can modify adjectives and verbs, but not nouns.

1. ADJECTIVAL ROOTS

Colonial and Modern Yucatec have both monosyllabic and disyllabic adjectival roots. Many of the monosyllabic roots in Colonial Yucatec have cognates in Modern Yucatec. Among them are seven color terms:

(1)	<u>Colonial</u> <u>Adjective</u>	<u>Gloss</u>	<u>Modern</u> <u>Adjective</u>	<u>Gloss</u>
	box	black	b'òoš	black, dirty
	çak	white, false	sak	white, false
	ek	black	?éek'	black
	chac	red	čak	red, pink, orange, rust-colored
	kan	ripe, yellow	k'an	ripe
	poz	pale, discolored	pos	pale
	yax	green	yá?aš	green

Taste is another semantic category represented by Colonial monosyllabic adjectives and their Modern cognates:

(2)	<u>Colonial</u> <u>Adjective</u>	<u>Gloss</u>	<u>Modern</u> <u>Adjective</u>	<u>Gloss</u>
	cii	sweet, tasty, delicious, pleasant	ki?	delicious

çuuɔ	sour, acrid, acidic, astringent	súʔuɟʔ	sour, acrid
čhaah	sour	č'áʔah	alkaline (taste in rainwater)
čhočh	salty, brackish, briny	č'óoč'	salty
pah	sour	pah	sour
pap	spicy, smarting, burning	páap	spicy
yac	strong like tobacco and chili	yak	smelly

A number of monosyllabic adjectives in Colonial and Modern Yucatec are concerned with personal characteristics, both good and bad:

(3)	Colonial Adjective	Gloss	Modern Adjective	Gloss
	co	crazy, foolish, insolent, boisterous, roguish, cunning, deceitful	koʔ	mischievous
	coc	deaf	kóok	deaf
	cul	short	kul	short
	çuc	tame, gentle	sùuk	tame, accustomed
	ɔut	scarce, scanty, avaricious, stingy, miserly, niggardly	ɟ'úʔut	stingy, niggardly
	il	obstinate, stubborn, furious	ʔiil	short-tempered, tearful
	kaz	bad, ugly	k'àas	bad, ugly
	kox	wild, intractable (animal), churlish, surly surly, uncouth, strange, antisocial, laconic	k'óʔoš	churlish, surly, wild, antisocial
	kux	angry, hateful, rancorous, abhorrent	k'ùuš	angry, hateful, rancorous, abhorrent
	nun	ignorant	nùum	ignorant, stupid, lazy, retarded
	poch	ravenous	pòoč	desirous, longing
	tʔah	active, industrious, tireless, curious, brave	t'áʔah	active, industrious, tireless
	utz	good, just, well-made	ʔuɟʔ	good, just

Monosyllabic adjectives that refer to a broader range of meanings appear below:

(4)	Colonial Adjective	Gloss	Modern Adjective	Gloss
	al	heavy	ʔal	heavy
	ceel	cold	kéʔel	cold
	cet	equal, even, jointly, together	kèet	equal, even

çaal	light (not heavy)	sáal	light (not heavy)
çuu	thick, dense	suʔ	dense, thick
ɔuɔ	withered, shrivelled	ç'ùuç'	small, retarded, undeveloped
chaah	sensitive (eyes to light, tooth)	čáʔah	sensitive (eyes to light, tooth)
chan	small	čan	little
haach	thin, sparse, not dense (gruel, soup)	háʔač'	watery, thin (liquid)
yaab	much, many, often	yáʔab'	much
kam	strong (voice, wind),	k'áʔam	strong, vigorous, violent
nach	far, distant, extended, long (shadow)	náač	far
naah	sufficient, full, complete	náʔah	full, satiated
tuu	stinky, rotten	tuʔ	stinky, rotten
uijh	hungry	wíʔih	hungry

Disyllabic adjectival roots are much less numerous than monosyllabic adjectival roots in Colonial and Modern Yucatec, but they cover a similar range of semantic categories:

(5)	Colonial Adjective	Gloss	Modern Adjective	Gloss
	bekech	thin (stick, thread)	b'ek'eč	thin
	çuhuy	virgin	suh(úʔ)uy	intact, virgin
	chacau	hot, warm	čokoh	hot
	chauac	long	čowak	long
	čilib	dry	č'ilib'	fallen (dried branches); skinny
	yanal	other	yàanal	other
	kanan	necessary, beautiful, esteemed	k'áʔanáʔan	necessary
	komoh	smelly	k'omoh	smelly
	mehen	small	mehen	small (plural)
	poloc	fat, corpulent	polok	fat
	ppulux	swollen	p'uruš	swollen
	ticin	dry	tikin	dry

Adjectives preceded the nouns that they modified in Colonial Yucatec:

- (6a) chacau taan
'hot ashes' (Ciudad Real 1600?: fol. 134v)
- (6b) hach ça
'watery gruel' (Ciudad Real 1600?: fol. 203r)
- (6c) kan nal
'ripe ear of corn' (Ciudad Real 1600?: fol. 238r)

(6d) a noh tuz
'your great lie' (Ciudad Real 1600?: fol. 330r)

(6e) yax ppopox
'green nettles' (Ciudad Real 1600?: fol. 392r)

So also do adjectives in Modern Yucatec:

(7a) b'oš miis
'black cat' (V. Bricker et al. 1998:36)

(7b) ɣ'uɣ' wiinik
'small man' (V. Bricker et al. 1998:55)

(7c) hač čokoh k'iin
'very hot sun' (V. Bricker et al. 1998:72)

(7d) táah k'áʔan ʔiik'
'very strong wind' (V. Bricker et al. 1998:144)

(7e) le š tuʔ nóok'aʔ
these stinky clothes' (V. Bricker et al. 1998:281)

2. DERIVED ADJECTIVES

Several kinds of adjectival stems could be derived from nominal and verbal roots, as well as from adjectival roots themselves. The principal derivational suffixes in Colonial Yucatec were -il, -tzil, -liç, -lac, -lic, -cabal, -chalc, -kalac, -ben, -vch, -em, -en, and the participial suffixes, -an and -vl, not all of which have survived into Modern Yucatec.

2.1. ADJECTIVES MARKED BY -IL. The suffix, -il, was used for deriving adjectives from nominal and adjectival roots.

2.1.1. ADJECTIVES DERIVED FROM NOMINAL ROOTS WITH -IL. Monosyllabic roots served as the source of a number of adjectives marked by -il in Colonial Yucatec:

(8)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	bak	meat	bakil	meaty
	caan	sky, heaven	caanil	high, celestial
	çaç	light, vision, sight	çaçil	lighted, clear, clean
	ɔib	writing, letter, painting	ɔibil	written, painted
	čoh	indigo	čohil	dyed, tinted with indigo
	ic	chili pepper	icil	peppery (sauces, broth, meat, stew)
	kab	hand, arm, finger	kabil	capable, talented
	kaax	forest, woods	kaaxil	forested, wooded, rustic, wild

kik	blood	kikil	bloody
kijx	spine, thorn	kijxil	spiny, thorny
ku	God	kuil	divine
muk	strength	mukil	firmly
pach	back, rear side, bark (of tree); last thing	pachil	last, final, ultimate
uey	concubine	ueyil	adulterous

One of the adjectives in this data set (kuil 'divine') had an alternative form (kuul) in which the vowel in the suffix (u) was a copy of the vowel in the root.

Five sets of examples in (8) have cognates in Modern Yucatec:

(9)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	b'ak'	meat	š b'ak'il	fleshy
	sáas	light, vision, sight	sáasil	clear
	č'iib'	writing	č'iib'il	written
	káʔan	sky, height	káʔanal	high, above
	pàač	back, rear side; bark (of tree)	pačal	retarded, backward

The suffix in the last two adjectives in (9) is a copy of the vowel in the roots (káʔan and pàač), continuing a process that seems to have begun during Colonial times.

Adjectives were also derived from disyllabic nouns by suffixing -il to the nominal root in Colonial times:

(10)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	akab	night	akabil	nocturnal [seldom used]
	anumal	news, fame, reputation	anumalil	newsworthy, laudatory
	ciçin	devil, demon, idol	ciçinil	devilish
	cucut	body	cucutil	corporeal
	mitnal	Hell	mitnalil	infernal, hellish
	pixan	soul	pixanil	spiritual
	takin	gold, silver; money	takinil	gold, silver
	uinic	man, woman	uinicil	human

None of the adjectival examples in (10) have cognates in the Hocaba dictionary of Modern Yucatec, but adjectives derived from other disyllabic nominal roots that refer to the four cardinal directions in Modern Yucatec take the same suffix (V. Bricker et al. 1998:70, 163, 199, 254):

(11)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	čik'in	west	čik'(i)nil	western
	lak'in	east	lak'(i)nil	eastern
	nohol	south	nòoh(o)lil	southern
	šaman	north	šam(a)nil	northern

2.1.2. ADJECTIVES DERIVED FROM ADJECTIVAL ROOTS WITH -IL. The Calepino de Motul lists ten adjectival stems that were derived from adjectival roots with -il:

(12)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	çiz	cold, cool	çizil	cool [from something cold]
	chac	great; very, much	chacil	grave, serious, very important
	han	clear of objects	hanil	clear of objects
	ya	painful, sore; grave, serious; difficult; pressured, intense, insistent	yail	dangerous, severe
	il	obstinate, stubborn; furious	ilil	terrible, abominable, wicked, depraved, inauspicious
	kaz	bad, ugly	kazil	mean, vile, foolish
	kam	strong (voice, wind), vigorous	kaamil	strong, forceful
	koch	true, infallible, certain	kochil	true, infallible, certain
	nach	far, distant, extended, long (shadow)	nachil	foreign, of another land or kingdom; aside
	teel	necessary; traditional; beneficial; profitable	teelil	traditional

The glosses provided by the Calepino for some derived adjectives in (12) are no different from those of the roots from which they were derived. For example, han and hanil both meant ‘clear of objects,’ and koch and kochil both meant ‘true, infallible, certain.’ However, in the majority of examples, the derived adjective had a somewhat different meaning from the adjectival root. Thus, nach meant ‘far, distant, extended,’ but nachil meant ‘foreign, of another land or kingdom,’ in addition to ‘aside.’ The meaning of il ‘obstinate, stubborn; furious’ was intensified in ilil ‘terrible, abominable, wicked, depraved, inauspicious.’ The same is true of kaz ‘bad, ugly’ versus kazil ‘mean, vile, foolish.’

Only two of the derived adjectives in (12) have cognates in the Hocaba dictionary of Modern Yucataec:

(13)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	háan	cleared	háanil	cleared of objects
	k'àas	bad, ugly	k'àasil	evil

The derived adjective, k'àasil, appears in a euphemism for the Devil: u k'àasil b'áʔal, literally ‘the evil thing’ (V. Bricker et al. 1998:148).

2.2. ADJECTIVES DERIVED FROM NOMINAL ROOTS WITH -TZIL. Another set of adjectives derived from nominal roots is marked by -tzil (phonetic [-ʒil]) in the Calepino de Motul. Monosyllabic roots serve as the source of the adjectives in (14):

(14)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	cheeh	laughter	chehtzil	ridiculous, laughable
	muk	strength; patience, suffering, necessity	muktzil	endurable, tolerable
	nup	the other (of a pair); opposition; enemy, adversary; counterweight	nuptzil	inimical, resistant, antagonistic, competing

ol	heart (non-corporeal), mind, will, desire, energy, spirit, condition, quality	oltzil	poor, miserable, anguished, wretched, hurt
ppec tzen	hatred person raised by another	ppectzil tzentzil	abominable requiring much service [rarely used]

In (15) appear such adjectives derived from disyllabic roots:

(15)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	anat	help, favor, aid, protection	anattzil	worthy of help
	batab	chief, leader	batabtzil	suitable for leadership
	baxal	toy, game	baxaltzil	ridiculed, mocked
	manab	phantom, ghost, apparition, goblin, hobgoblin, sprite	manabtzil	abominable, frightening, frightful

The -tzil suffix is no longer productive for deriving adjectives from nominal roots in Modern Yucatec. It is limited to a single example: ʔóo(l)ʔil 'poor, miserable' (< ʔóol 'heart, will, energy, spirit') (V. Bricker et al. 1998:14, 17).

2.3. ADJECTIVES DERIVED FROM NOMINAL ROOTS WITH -LIZ. The suffix, -liz, co-occurred with ten adjectives derived from nominal roots listed in the Calepino de Motul. The roots of six of them also served as numeral classifiers, and the adjectives derived from them were concerned with size, time, and completeness:

(16)	<u>Numeral Classifier</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	bak	count of 400	bakliz	huge
	cot	classifier for counting quadripeds	co(o)tliz	whole (animal)
	haab	year, age, period of years	haabliz	lasting one year, every year
	paac	count of tribute cloths	pacliz	complete
	pic	count of 8,000	picliz	many, numerous, countless, innumerable
	u	lunar month	uliz	every month

The remaining adjectives were derived from common nouns:

(17)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	ak	vine	akliz	creeping, climbing, vining
	be	road	beeliz	travelling, walking, going about on land
	nic	extremity, end, terminus	nicliz	finite
	tan	middle, half	tanliz	striped

Only three adjectives suffixed by -lis are listed in the Hocaba dictionary of Modern Yucatec:

(18)	<u>Adjective</u>	<u>Variant</u>	<u>Gloss</u>
	k'ol-lis	k'óol-lis	bald
	tul-lis	túul-lis	full, round, whole
	wol-lis	wóol-lis	round

Of these, only w(ó)ol-lis is related to a numeral classifier: wóol 'ball, circle' (V. Bricker et al. 1998:307). A possible cognate of this adjective in Colonial Yucatec had a completely different meaning: uoliz 'solid, firm.'

2.4. ADJECTIVES MARKED BY -ACH OR -VCH. The Calepino de Motul lists a number of adjectives that were derived from adjectival or nominal roots with the suffixes, -ach or -Vch (V was a copy of the vowel in the root). The ubiquity of -ach in such stems and the replacement of /a/ by vowel-copying in a few cases suggests that the vowel in this suffix was originally schwa.

2.4.1. ADJECTIVES DERIVED FROM ADJECTIVAL ROOTS WITH -ACH OR -VCH. The suffix, -ach, marked derived adjectives whose root vowel was /a/ in Colonial Yucatec:

(19)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	chauac	long	chaucach	gigantic
	hah	true, valid; fixed, permanent, agreeable; necessary	halach	true, truly
	yaab	much, many, often	yaabach	many
	kaz	somewhat, semi	kazach	somewhat
	kak	straight	kakach	directly
	kalam	difficult, hard to please, arrogant	kalamach	difficult, hard to please, arrogant
	kam	strong (voice, wind), vigorous	kamach	strong [in compounds]
	tʰah	active, industrious, tireless, curious, brave	tʰahach	active, industrious, tireless, curious, brave

It also marked four derived adjectives whose root vowel was /i/ or /o/:

(20)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	cooc	scarce, niggardly, stingy, leprous, mean, wretched	coocach	scarce, niggardly, stingy, leprous, mean, wretched
	oijc	left (hand, side)	oijcach	sinister, insolent, excessive, touchy, disliked, ungrateful
	kox	wild, intractable (animal), churlish, surly, uncouth, strange, anti-social, laconic (man)	koxach	wild, intractable (animal), churlish, surly, uncouth, strange, anti-social, laconic (man)

noh	right-handed; principal, great	nohach	sagacious, capable, skillful, industrious, robust, diligent, prompt
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However, the suffixes of six derived adjectives whose root vowel was /i/, /o/, or /u/ were -ich, -och, and -uch, respectively:

(21)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	cii	sweet, tasty, delicious, pleasant	cilich	holy, blessed
	coh	precious, valuable	coohoch	valuable, precious
	kul	very, much	kuluch	entirely, wholly [in some verbal compounds]
	noh	right-handed; principal, great	nohoch	big, large, great
	nuc	fat, thick, bulky	nucuch	thick, coarse, fat, excellent
	toop	precipitously, recklessly, violently	toopoch	precipitously, recklessly, violently

An exception was kul^{ich} 'smooth, shiny (stones)' (< kul 'hardened (fruit), bright'), whose suffix was -ich instead of -uch (or -ach).

2.4.2. ADJECTIVES DERIVED FROM NOMINAL ROOTS WITH -ACH. Six adjectival stems derived from nominal roots in the Calepino de Motul co-occurred with -ach in agreement with the vowel in their roots:

(22)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	ahual	principal enemy and opponent who kills and destroys; vile, very harmful and pernicious thing	ahualach	difficult, troublesome, arrogant, inconsiderate, discontented person who does not like to associate with poor people
	bak	count of 400	bakach	all
	çauin	covetous, jealous	çauinach	covetous, jealous
	yamaa	boy who cries easily; cry-baby	yamaach	tearful (boy)
	yaom	vulgar, indecent woman; whore; bad Christian; hypocrite	yaomach	deceitful, feigned, hypocritical
	lac	totality, every thing	lâcâch	all [in compounds]

Four of the adjectives derived from adjectival roots with -ach or -Vch in (19) and (21) have cognates in the Hocaba dictionary of Modern Yucatec:

(23)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	kiʔ	tasty, delicious	kiłiʔič	holy
	noh	principal	nohoč	big, large, great
	nùuk	big (plural)	nukuč	big, great (plural)
	yaʔabʼ	much	yáʔabʼač	many ¹

2.5. ADJECTIVES MARKED BY -BEN. The potential suffix, -ben, which means ‘capable of being,’ can be added to nominal and verbal roots and stems.

2.5.1. POTENTIAL ADJECTIVES DERIVED FROM NOMINAL ROOTS. The Calepino de Motul lists the following potential adjectives derived from nominal roots:

(24)	<u>Noun</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	alak	domesticated animal	alakben	friendly, sociable, tractable
	baxal	toy, game	baxben	easily ridiculed, mocked
	be	road	beelben	feasible, practicable
	can	talk, chat, conversation, story, sermon	canben	recountable
	lak	companion, neighbor; spouse, friend, concubine	lakben	friendly, sociable, companionable
	muk	strength; patience, suffering, necessity	mukben	tolerable
	nic	extremity, end, terminus	nicben	finite
	ol	heart (non-corporeal), mind, will, desire, energy, spirit; condition, quality	olben	desirable
	ppec	hatred	ppecben	abominable
	tumut	plan, advice	tumtaben	testable, worthy of consideration

None of these adjectives have cognates in the Hocaba dictionary of Modern Yucatec, and only one adjective in that dialect is derived from a nominal root with -b'é?en: páayb'é?en ‘indispensable’ (< páay ‘part, piece’) (V. Bricker et al. 1998:210).

2.5.2. POTENTIAL ADJECTIVES DERIVED FROM VERBAL ROOTS. The Calepino de Motul lists six adjectives that were derived from verbal roots with the potential suffix, -ben:

(25)	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	cuch	carry on back	cuchben	transported, transportable on back
	tzic	obey, honor, respect	tzicben	honorable, venerable
	ɔac	cure, heal	ɔacben	curable
	c̣ha	take, seize, collect, carry off	c̣haben	acceptable
	ṭhan	speak, call, address	ṭhanben	pronounceable
	uch	happen	uchben	old, ancient

Modern cognates of four of these potential adjectives (tzic, ɔac, ṭhan, uch) are among the ones listed in the Hocaba dictionary:

(26)	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	ǵik	respect, obey	ǵikb'é?en	respectable
	ǵ'ak	cure, heal	ǵ'akb'é?en	curable
	č'ak	cut [with a blow], axe	č'akb'é?en	cuttable
	hek'	break off, snap	hek'b'é?en	breakable
	kač	split, fracture	kačb'é?en	breakable
	kon	sell	komb'é?en	salable
	man	buy, purchase	mamb'é?en	purchasable
	moč	retract /hands, feet/	močb'é?en	retractable
	puč'	crush, mash, bruise	puč'b'é?en	crushable
	šok	count, read, study	šokb'é?en	legible
	šot	cut, slice	šotb'é?en	cuttable
	šot'	saw, break, limit	šot'b'é?en	cuttable
	tus	lie, deceive	tusb'é?en	gullible
	t'an	speak, call, address	t'anb'é?en	pronounceable
	?úuč	happen	?učb'en	old, ancient
	?uk'	drink	?uk'b'é?en	potable

The only intransitive root in this list is ?úuc 'to happen.' All the other roots in (26) are transitive, contrasting in this respect with the greater emphasis on nominal roots as sources of potential adjectives in the Calepino de Motul (as suggested by [24] above).

2.6. ADJECTIVES DERIVED FROM VERBAL ROOTS OR STEMS WITH -LAC OR -LIC. The suffix, -lac, derived adjectives from celeritive and inchoative stems, transitive roots, and a few positional roots in Colonial Yucatec. In addition, -lic, an apparent variant of -lac, derived adjectives from the majority of positional roots. The -lac adjective derived from celeritive and inchoative stems had a gerundial meaning.

2.6.1. ADJECTIVES DERIVED FROM CELERITIVE STEMS. As explained in 2.3. in Chapter 6, celeritive verbs were derived from verbal roots by suffixing -kah (phonetic [-k'ah]) in Colonial Yucatec. The Calepino de Motul lists thirteen adjectives with -ka-lac, five of which are paired with the celeritive verbal stems from which they are derived:

(27)	<u>Celeritive Verb</u>	<u>Gloss</u>	<u>Celeritive Adjective</u>	<u>Gloss</u>
	balkah	roll over; upset (vessel)	balkalac	rolling over; restless; rolling back and forth
	coolkah	become loose (tied object), rickety, disconnected	coolkalac	loose
	mankah	pass quickly or suddenly; forget	mankalac	passing suddenly or quickly
	pitkah	slip, slide	pitkalac	escaping, sliding away, slipping away
	ualkah	return	ualkalac	aimless, disoriented (sick person)

Such adjectives are also well documented in the Hocaba dictionary of Modern Yucatec:

(28)	Celeritive		Celeritive	
	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	hetk'ah	split, break suddenly	hetk'alak	breakable
	hopk'ah	flame suddenly (gasoline)	hopk'alak	flammable
	kipk'ah	slip suddenly	kipk'alak	slippery
	k'atk'ah	block suddenly	k'atk'alak	weaving back and forth (traffic)
	leb'k'ah	open suddenly	leb'k'alak	easily opened (door that won't stay closed)
	nilk'ah	slip, fall	nilk'alak	slippery
	nup'k'ah	close suddenly	nup'k'alak	easily closed
	tep'k'ah	burst suddenly	tep'k'alak	easily burst
	wač'k'ah	bend suddenly (corn)	wač'k'alak	pliable

2.6.2. ADJECTIVES DERIVED FROM INCHOATIVE STEMS. The suffix, *chah*, derived inchoative verbs from several kinds of roots, principally adjectival and nominal, in Colonial Yucatec (see **2.2.2.** in Chapter 6). The Calepino de Motul lists 35 inchoative verbs marked by *-chah*, of which ten are paired with adjectives derived from them by *-lac*:

(29)	Inchoative		Inchoative	
	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	balchah	become hidden, covered; disappear	balchalac	hidden, disappeared
	coolchah	become loose (tied object), rickety, disconnected	coolchalac	loose
	çaychah	become twisted (foot), dislocated (bone)	çaychalac	twisted, dislocated
	hacchah	slip, slide, skid	hacchalac	slipping, sliding
	lubchah	go about falling and getting up again	lubchalac	falling and getting up again
	namchah	lose sight; be forgotten	namchalac	losing vision or becoming forgetful
	otchah	fall (ripe fruit); fall off (branch); collapse (building); rain (water from clouds)	otchalach	fallen (fruit, stone)
	ppuchah	unstitch, tear (cloth); unbind (book)	ppuchalach	unstitching, tearing (cloth), coming unbound (book)
	tomchah	sink [into water, mud]; step in pit, snare	tomchalac	hobbling
	uecchah	become spilled, scattered, shed	uecchalac	spilling, scattering, shedding

The Hocaba dictionary contains no examples of inchoative adjectives suffixed with *-lak*, implying that that derivational process did not survive into Modern Yucatec.

2.6.3. ADJECTIVES DERIVED FROM TRANSITIVE ROOTS WITH -LAC. The Calepino de Motul lists eleven adjectives derived from transitive roots with -lac:

(30) Transitive			
<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
cip	slide /curtain/	ciplac	slippery
chol	loosen, untangle	cho(l)lac	blistered (wall from humidity)
cheh	spill, scatter widely	chehelac	drop by drop
hak	astonish, marvel; frighten	hak(a)lac	moaning (patient near death), dismayed [because of lack of resources to pay debt quickly], afflicted [because of having eaten too much]
kux	bite, gnaw, crunch; fray, erode	kuxlac	feverish, aching
mak	eat soft food	maklac	soft, tender (lettuce, <u>chaya</u> leaves)
muc	hide, conceal, deny, disclaim, dissimulate	muclac	hidden, concealed, temporarily visible
nol	gnaw /bones/	nollac	hard, hardy, obdurate
puk	melt /wax, gold, silver, lead/; mix	puklac	juicy, greasy
ppic	break off /flower, leaf/	ppicilac	aching, painful
tepp	burst, break /cord, rope, thread/	tepplac	taut, swollen [about to burst]

No adjectives derived from suffixing -lac to transitive roots are mentioned in the Hocaba dictionary of Modern Yucatec.

2.6.4. ADJECTIVES DERIVED FROM POSITIONAL ROOTS WITH -LAC OR -LIC. The suffix, -lac, also derived adjectives from positional roots in Colonial Yucatec:

(31) Positional			
<u>Root</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
chel	lie down, stretch out, lie full length; be stretched out, lying down; dismissed	chelac	lying down
lech	hang from pole or shoulder (clothing, axe)	lechlac	hanging from rope or pole (clothing)
nay	be leaning, tilted, falling, lying down	naylac	leaning, tilted to one side
ppuc	stoop, squat, crouch	ppuclac	stooped, crouched
ppux	bend, stoop, crouch	ppuxlac	bent, stooped, crouched
xac	bend over, fall on hands and knees	xacalac	on all fours

However, the *Calepino de Motul* lists a much larger number of adjectives derived from positionals by suffixing -lic, instead of -lac, to the root:

(32)	Positional			
	<u>Root</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	ac	settle, form puddles, seat firmly	aclic	seated, placed firmly
	ban	pile up, be joined; stretch out	banlic	piled up
	cul	sit down, reside, be in a place	culic	seated, residing
	çin	stretch out, spread out	çinlic	extended, broad, prolonged, enduring
	chel	lie down, stretch out, lie full length; be stretched out, lying down; dismissed	che(l)lic	hurled, flung; stretched out, spread out; dismissed
	chin	bow, grovel; be ashamed	chinlic	bowed, humbled
	çhuy	hang, dangle	çhuylic	dependent, hanging
	lech	hang from pole or shoulder (clothing, axe)	lechlic	hanging from pole
	nac	lean against	naclic	leaning
	naɔ	be close or nearby	naɔlic	near
	ppoh	bend over	ppohlic	bent over
	tak	stick, adhere (plaster, paper)	taklic	presence
	tʰon	lean, droop [from sickness]	tʰonlic	humble, meek, lowly, humiliated
	xol	steady, prop up	xo(l)lic	secure

The only positional adjectives that have both -lac and -lic suffixes have /e/ as their root vowel (chel and lech), suggesting that -lac was a vestige of a more widespread pattern before it eventually became -lic in the majority of such adjectives. However, neither -lic nor -lac co-occurs with positional roots in Modern Yucatec, nor in the other Yucatecan languages spoken today.

2.7. POSITIONAL ADJECTIVES MARKED BY -CABAL. Adjectives were also derived from positional roots in Colonial Yucatec by suffixing -cabal to the root, and cognates of them are present in Modern Yucatec, Lacandon, Itsaj, and Mopan. They are described at length in **1.** of Chapter 11 and will not be considered further here.

2.8. DERIVED ADJECTIVES MARKED BY -EN. The *Calepino de Motul* lists five adjectives derived from verbal roots, four transitive and one intransitive, and one adjective derived from an adjectival root, all marked by -en. The adjectives derived from verbal roots appear below:

(33)	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	biz	bore, pierce, perforate	bizen	bored, pierced, perforated
	cim	die	cimen	dead
	tzil	unravel, shred, tear /paper, cloth/ deflower /maiden/	tzilen	unravelling, torn, shredded
	hom	clear, level	homen	opened, cleared
	lab	deteriorate, wear out	laben	corruptible, easily spoiled or used up

The adjective derived from an adjectival root was coyen 'crazy, foolish, lewd, mischievous' (< co 'crazy, foolish, insolent, boisterous, roguish, cunning, deceitful'). The suffix, -en, survives only in kimen, the cognate of cimen 'dead,' in Modern Yucatec.

2.9. DERIVED ADJECTIVES MARKED BY -EM OR -OM. The suffix, -em, derived four adjectives from active transitive or middle voice stems, one from an adjectival root, and one from a nominal root in Colonial Yucatec. The adjectives derived from active transitive or middle voice stems appear below:

(34)	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	çahal	disdain, withdraw	çah(a)lem	moderate, circumspect, decorous
	çhehel	consume, use up	çheh(e)lem	sparsely
	kool	transgress, violate, scorn /order, command/	kolem	mischievous, incorrigible, disobedient
	xot	determine	xotem	fixed, determined, resolute

The other two derived adjectives were hulem 'similar, like' (< hul 'similar, like') and kulem 'divine, holy, sacred' (< ku 'God'). The Hocaba dictionary of Modern Yucatec contains no examples of -em as an adjectival suffix.

A possibly related suffix, -om, derived adjectives from intransitive roots and stems, as well as from adjectival roots in Colonial Yucatec. The adjectives derived from intransitive or middle voice verbs are listed below:

(35)	<u>Verb</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	cim	die	cimom	mortal
	oc	enter	ocom	entering
	ok	cry, weep	okom	sad
	tichil	protrude, extrude	tich(i)lom	exceeding
	uacal	swell up	uac(a)lom	extruding

Two adjectives were derived from adjectival roots with -om:

(36)	<u>Adjective</u>	<u>Gloss</u>	<u>Adjective</u>	<u>Gloss</u>
	çaatay	perishable	çaatayom ²	perishable
	hauay	finite, perishable	hauayom	finite, perishable

The suffix, -om, is represented only by ?ok'om, the cognate of okom 'sad,' in Modern Yucatec.

2.10. ADJECTIVES DERIVED FROM CVC TRANSITIVE AND POSITIONAL ROOTS WITHOUT SUFFIXATION. Hofling (2000:156) lists a small group of adjectives that are derived from CVC transitive roots in Itsaj “with a change in the root vowel involving lengthening or glottal insertion.” One of the examples in his list has cognates in both Colonial and Modern Yucatec:

(37)	Transitive <u>Root</u>	Derived <u>Adjective</u>
Itsaj	təǵ' ‘to straighten’	táǵ' ‘straight’
Modern Yucatec	táǵ' ‘to plane, straighten’	táaǵ' ‘directly, at once’
Colonial Yucatec	taǝ ‘to plane, straighten; extend, stretch out’	taǝ ‘straight, continuous’

The differences between the Itsaj and the Modern Yucatecan examples can be explained as follows: Itsaj has retained the schwa of Proto-Yucatecan in transitive roots, whereas Modern Yucatec has lowered it to [a]. Therefore, vowel lengthening in Itsaj involves raising schwa to [a], but because the vowel in the transitive root in Modern Yucatec is already [a], it is both lengthened and given a tonal contour. On the other hand, the distinction between schwa and [a] was neutralized in the Colonial orthography (cf. 2.3.3. in Chapter 3 and V. Bricker and Orie 2014:186–192), accounting for the taǝ spelling of both the root and the adjectival examples in Colonial Yucatec in (37) above.

Direct evidence of vowel lengthening or glottal-stop insertion in adjectives derived from CVC transitive or positional roots appears in four examples of such adjectives in the Calepino de Motul:

(38)	Transitive <u>Root</u>	<u>Gloss</u>	Derived <u>Adjective</u>	<u>Gloss</u>
	chal	to rinse out, wash out	chaal	settled and clear
	ɔuy	to bend, twist	ɔuuy	flexible, strong
	taǝ	to straighten; extend, stretch out	taaǝ	lame, stiff (leg or foot that will not bend or drags)
	upp	crack, bruise, break into pieces in the hands; diminish, reduce	(u)upp	cracked, bruised, broken

The adjective derived from upp is described as consisting of two syllables in the Calepino de Motul (Ciudad Real 1600?:fol. 451v), which implies that it contained an infix glottal stop.

In addition, nine CVC adjectives, seven derived from CVC transitive roots and two derived from CVC positional roots in Colonial Yucatec, have cognates in Modern Yucatec:

(39)	Colonial		Modern	
	<u>CVC Root</u>	<u>Derived Adjective</u>	<u>Derived CVC Root</u>	<u>Adjective</u>
	coy 'to tilt, bend, fold, shift unevenly'	coy 'unequal, uneven, folded unevenly (clothes, blanket, mat)'	koy 'to fold unevenly'	kòoy 'uneven'
	chup 'to fill'	chup 'full, swollen, inflamed'	čup 'to fill'	čùup 'swollen, full'
	hay 'to spread out, extend; prepare'	hay 'flat, level, smooth, thin'	hay 'to spread out, extend'	hàay 'thin (paper, clothes)'
	puch 'to crush, mash, bruise, smash'	puch 'crushed, mashed, bruised, smashed'	puč' 'to crush, mash, bruise'	pùuč' 'crushed, mashed, bruised'
	puk 'to melt /wax, gold, silver, lead/, mix'	puk 'turbid'	puk' 'to dilute, dissolve, mix'	pùuk' 'scrambled (egg)'
	tao 'to plane, straighten, extend, stretch out'	tao 'straight, continuous'	taç' 'to plane, straighten'	táaç' 'directly, at once'
		taao 'lame, stiff (leg or foot that will not bend and drags)'	taç' 'to plane, straighten'	—
	tax 'to level, smooth, flatten'	tax 'flat, smooth, even'	—	táaš 'flat, smooth [without stones]'
	xach 'to thin out'	xach 'thin, sparse, not dense'	šač 'to part, separate, spread (legs)'	šáač 'separated (threads in hammock)'

In the next to the last set of examples, only the adjective derived from *tax* has survived in Modern Yucatec (V. Bricker et al. 1998:271); it is *tàaš* in Lacandon (Canger 1995). Neither the transitive root nor the adjective derived from it is documented in Itsaj or Mopan.

All the derived adjectives in the last column of (39) have long vowels and tone, low or falling tone in the first five examples and high or rising tone in the last three examples. The Colonial counterpart of [áa] in the last three adjectives in (39) was [a], contrasting with schwa in the roots from which they were derived, as explained in the discussion of *taɔ/táaɔ'* above. The Modern examples of derived adjectives with long vowels and low or falling tone have cognates in Colonial Yucatec whose vowels may not have lengthened yet (cf. 2.3.2.2. in Chapter 3).

In addition to the thirteen examples of adjectives derived from CVC transitive or positional roots in (38–39), there are ca. 60 examples of such adjectives in the Calepino de Motul that are spelled with a single vowel, but do not have cognates in the Hocaba dictionary of Modern Yucatec. Because the Calepino marked vowel length or the infixation of laryngeals only when a pair of entries differed in one of those features, the absence of vocalic doubling in a derived adjective did not automatically mean that it lacked such a characteristic. Fortunately, there are a few examples with vocalic doubling or cognates in Modern Yucatec that make it possible to demonstrate that at least some Colonial adjectives derived from CVC transitive or positional roots without suffixation underwent the same vocalic modifications that Hofling (2000:156) has described for Itsaj.

3. PARTICIPLES

Three kinds of participles were derived from verbal roots and stems in Colonial Yucatec: (1) participles marked by *-(a)an*, (2) participles marked by *-l*, and (3) participles marked by *-bil*. Although, by definition, participles are based on verbal roots and stems, the *-(a)an* suffix was also used for deriving participles from adjectival and nominal roots in Colonial Yucatec. A fourth class of participles involving reduplication of part or all of the verb root is treated at length in Chapters 12 and Chapter 13 and will not be considered further here.

3.1. PARTICIPLES MARKED BY *-(A)AN*. Ten of the many *-(a)an* participles derived from transitive roots have cognates in Modern Yucatec; they appear side-by-side below:

(40)	<u>Colonial</u>		<u>Modern</u>	
	<u>Transitive</u> <u>Root</u>	<u>Participle</u>	<u>Transitive</u> <u>Root</u>	<u>Participle</u>
	<i>bay</i>	<i>bayan</i>	<i>b'ay</i>	<i>b'ayan</i>
	'to straighten, stroke'	'straight, aligned'	'to straighten'	'straight, aligned'
	<i>çij</i>	<i>çijlan</i>	<i>síih</i>	<i>si?an</i>
	'to give, make offering'	'offered, given'	'to donate, make a gift'	'donated'

ɔac 'to cure, heal; poison 'a beverage'	ɔacan 'cured, healed; poisoned'	č'ak 'to cure, heal, take advantage of, overcharge'	č'akáʔan 'cured'
chaa 'to loosen, untie; alleviate; assist'	chaan 'loose'	čaʔ 'to free, loosen, untie, release, allow, let'	čáʔan 'liberated, freed'
č'ih 'to grow'	č'ihaan ~ č'iyaan 'grown'	č'ih 'to make old, age'	č'iháʔan 'old'
hel 'to change 'occupation, clothes/, exchange, return, recompense'	helan 'changed, distorted, different, strange'	hel 'to change 'clothes, dress/'	heláʔan 'different, strange [unacceptable behavior]'
hij 'to grind, whet, sharpen'	hijan 'sharp, keen'	hiʔ 'to rub, smooth, iron'	hiʔan 'rubbed, smoothed, ironed'
he 'to open 'doors, windows/'	hean 'open'	heʔ 'to open'	heʔan 'opened'
poch 'to insult, dishonor, reprove, condemn'	pochan 'insulting, disrespectful'	poč' 'to insult'	poč'áʔan 'insulted'
tʰab 'to light, kindle 'candle, lamp/'	tʰaban 'lighted, kindled (candle, lamp)'	t'ab' 'to light, kindle'	t'ab'áʔan 'lighted, angry'

In general, they seem to have a passive meaning, although in at least one case (pochan 'insulting, disrespectful'), the gloss was gerundial in Colonial Yucatec. So also is the meaning of one participle derived from a transitive root in Modern Yucatec that lacks a cognate in Colonial Yucatec: b'okáʔan 'reeking' (< bok 'to perfume, fumigate').

Two of the participles derived from positional roots in Colonial Yucatec have cognates in Modern Yucatec:

(41)		<u>Colonial</u>		<u>Modern</u>	
Positional		Positional		Positional	
<u>Root</u>	<u>Participle</u>	<u>Root</u>	<u>Participle</u>	<u>Root</u>	<u>Participle</u>
cul	culaan	kul	kulá?an	kul	kulá?an
'to sit down, reside, be in place'	'be in a place; seated'	'to sit down'	'be in a place'		
tʰon	tʰonan	t'on	t'oná?an		
'to lean, droop [from sickness]'	'humble, weak'	'to droop (sick animal, flowers)'	'fatigued, sick'		
	tʰonaan				
	'weak, faint'				

They, too, seem to have passive meanings in both dialects of the language.

Four participles derived from intransitive roots in Colonial Yucatec have cognates in Modern Yucatec:

(42)		<u>Colonial</u>		<u>Modern</u>	
Intransitive		Intransitive		Intransitive	
<u>Root</u>	<u>Participle</u>	<u>Root</u>	<u>Participle</u>	<u>Root</u>	<u>Participle</u>
ben ~ bin	binan ~ bihan	b'in	bihá?an	b'in	bihá?an
'to go'	'gone'	'to go'	'gone'		
ɔoc	ɔocaan	ø'ó?ok	ø'oká?an		
'to end, be finished, be over'	'finished, ended; complete, perfect'	'to finish, end'	'finished, ended'		
can	canaan	ká?an	ká?aná?an		
'to tire, become tired'	'tired'	'to tire'	'tired'		
lik	likaan	líik'	lik'á?an		
'to rise, ascend; leave a place'	'raised'	'to rise, ascend'	'raised'		

They, like the participles derived from other verbal roots, have a passive meaning. However, four Colonial participles based on intransitive roots that do not have Modern cognates have gerundial meanings:

(43)		Intransitive	
<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
ah	wake up	ahan	awake
el	burn	elan	burned, burning

hok	come out, emerge, appear, sprout, turn out	hokaan	emergent
uen	sleep, dream	uenan	sleeping

Glosses like ‘burning,’ ‘emergent,’ and ‘sleeping’ refer to events in progress, not completed.

The participle derived from ben/bin ‘to go’ in Colonial Yucatec had two forms: binan ~ bihan ‘gone,’ and its Modern cognate is b’ihá?an (< b’in-ah-á?an) (see the first set of examples in [42] above and the comparison of the completive and present perfect aspects in 3. in Chapter 5).

The Calepino de Motul lists seven participles that were derived from adjectival roots with -(a)an in Colonial Yucatec:

(44)	Adjectival			
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	cet	equal, even; jointly, together	cetan	adjusted
	cii	sweet, tasty, delicious, pleasant	cian ~ ciyan	drunk
	co	crazy, foolish, insolent; boisterous, roguish, cunning, deceitful	coyaan	crazy, flighty, lewd; mischievous
	çaal	light [not heavy]	çalan	light
	çhuy	slowly, little by little	çhuyaan	now and then; unresolved (dispute)
	nach	far, distant, extended, long (shadow)	nachaan	far, distant, apart
	xab	scattered, spread	xaban	separated, scattered; mixed with different things

None of these participles have cognates in Modern Yucatec. Only four participles derived from adjectival roots with -á?an are mentioned in the Hocaba dictionary of Modern Yucatec:

(45)	Adjectival			
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	?al	heavy	?alá?an	heavy
	noh	principal	nohá?an	mature, reasonable (child); useful
	nùuk	big (plural)	nú?uká?an	middle-sized
	sùuk	tame, accustomed	sùuká?an	customary

Three times as many participles derived from nouns as from adjectives with -(a)an appear in the Calepino de Motul, of which the following are representative:

(46)	Nominal			
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	bool	payment, reward, daily wage; price, value; share of meal	boolan	paid
	can	talk, chat, conversation, story, sermon	canaan	told, recounted

ɔib	writing, letter; painting	ɔiban	written, painted
chek	footstep, footprint, track (animal)	chekaan	trampled, trodden
kak	fire, open flame; smallpox, pox in general; anger, rage, fury	kakan	roasted
ku	God	kuyaana	consecrated, blessed
muk	strength; patience, suffering, necessity	mukaan	firm; suffered, endured through suffering; permitted, tolerated; feigned, pretended
nic	rose, flower	nican	blooming
pib	pit oven	piban	baked in pit oven
uoh	character, letter	uohan	written
xay	crossroads, intersection; forked pole, branch	xayan	forked (branch of tree, road)

Only two of them have cognates (ɔib and muk) among the four examples of such participles in Modern Yucatec:

(47)	Nominal			
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	ǰ'íib'	writing	ǰ'íib'áʔan	written
	káʔan	sky, height	káʔanháʔan	haughty
	mùuk'	strength	múʔuk'áʔan	strong, thick
	péek	motion	péekáʔan	quickly

It is instructive to compare the derivation of participles directly from nominal roots with those derived from transitive stems derived from such roots:

(48)	Nominal		Transitive	
	<u>Root</u>	<u>Participle</u>	<u>Stem</u>	<u>Participle</u>
	men	menaan	mentah	mentahan
	'occupation'	'prepared, arranged, embellished, decorated, adorned'	'to do, make'	'made, prepared'
	taab	taaban	taabtah	taabtaan
	'salt'	'salty, salted'	'to salt'	'salty, salted'

The participles derived from transitivized stems retain the denominal suffix, -t, whereas the participles derived directly from nominal roots do not have such a suffix. The same is true of participles derived from causative stems derived from intransitive roots:

(49)	Intransitive		Causative	
	<u>Root</u>	<u>Participle</u>	<u>Stem</u>	<u>Participle</u>
	káah	kahan	kahçah	kahçahan
	'to remember'	'memorized; sensed, noticed, realized'	'to remember, memorize'	'inspired'
	man	manaan	maneçah	maneçan
	'to pass by, move'	'passed'	'to pass, transfer, transport'	'passed'

And participles derived from causative stems derived from adjectival roots retain the causative suffixes, -cin/-cun:

(50)	Adjectival		Causative	
	<u>Root</u>		<u>Stem</u>	<u>Participle</u>
	cooh		coohcinah	coohcinaan
	'precious, valuable'		'to value, price, appraise, augment, exaggerate'	'valued, appraised, exaggerated'
	çac		çaccunah	çaccunaan
	'white, false'		'to bleach'	'bleached'
	noh		nohcinah	nohcinan
	'right-handed; principal, great'		'to enlarge, exaggerate, esteem, praise'	'exaggerated, magnified, exalted, praised'

In other words, the derivation of participles from adjectival and nominal roots does not require an intermediate derivation from a transitive stem.

3.2. PARTICIPLES MARKED BY -BIL. The Calepino de Motul contains numerous examples of participles derived from transitive roots with -bil, 65 of which have counterparts marked by -(a)an. In most cases, the glosses of the participial pairs in -bil and -(a)an are virtually identical, as can be seen in the following pairs of examples:

(51)	Transitive	-(a)an	-bil
	<u>Root</u>	<u>Participle</u>	<u>Participle</u>
	tzah	tzahaan	tzahbil
	'to fry'	'fried'	'fried'
	chac	chacaan	chacbil
	'to boil in water or other liquid'	'boiled'	'cooked, boiled'
	hao	hacaan	haobil
	'to whip, discipline; clear /bush/	'wounded, whipped, cudgelled'	'wounded, whipped, cudgelled'

yoṯh 'to massage, handle, touch, feel'	yoṯhaan 'massaged, handled, touched, felt'	yoṯbil 'massaged, handled, touched, felt'
kat 'to ask, request, inquire, investigate, interrogate'	kaatan 'requested, asked'	katbil 'requested'
kel 'to toast, roast'	kelaan 'toasted, roasted'	kelbil 'toasted, roasted'
mux 'to destroy, liquidate; grind up, crush /dry things/'	muxaan 'ground up, destroyed, consumed'	muxbil 'ground up'
pay 'to call, summon; provoke, incite'	payan 'summoned'	paybil 'called, summoned'
ppiz 'to measure, weigh'	ppizaan 'measured, weighed'	ppizbil 'measured, weighed, compared'
tic 'to undo, come undone; open /letter/'	ticaan 'undone, unravelled, opened'	ticbil 'undone, unravelled, opened'

Obviously, the glosses of these pairs are not useful for identifying any functional differences between the two suffixes. For this purpose, it is necessary to examine the use of the two kinds of participles in clauses. Fortunately, folio 239v of the Calepino de Motul (Ciudad Real 1600?) has two sets of examples that contrast the functions of kaatan and katbil in context:

- (52a) kaatan ti cuchi
'having been requested earlier'
- (52b) katbil t u hoppol v kati
'it was necessary for it to be requested first'
- (52c) kaatan v chij
'it was asked'
- (52d) katbil v chij v kati
'it is necessary that it be asked'
- (52e) kaatan v tñan
'it was asked'
- (52f) katbil v tñan v kati
'it is necessary that it be asked'

From them we can infer that -bil served as a future passive participial suffix in some contexts, contrasting in this respect with the perfect passive meaning of -(a)an in related contexts.

This use of -bil can also be documented in other Colonial sources:

(53a) ley tun Aguar.^e lae c u tuchitic hotzuc conbil
 'this rum then, he sends it to Tihosuco to be sold' (HB784C-213A-B)

(53b) lay pome t̃ha(b)bil elel v cah
 'this incense to be set on fire, it will burn' (Gordon 1913:36)

(53c) mehene ca xic chucbil v balamil actun t a menel
 'son, go for the jaguar of the cave to be caught by you

v ciilte yn hanal yan uol yn hantante balam
 to flavor my food; I have a desire to eat jaguar' (Gordon 1913:39)

The future meaning of t̃ha(b)bil in (53b) contrasts with the present meaning of t̃haban in (54a):

(54a) t̃haban u puccikal t u hunal
 'the heart is on fire alone' (Gordon 1913:47)

The present perfect meaning of -(a)an is documented in (54b):

(54b) lay ahauob tzolanob lae
 'these rulers who have been set in order' (Gordon 1913:71)

The temporal distinction between -(a)an and -bil is not as evident when the participles formed by suffixing them to transitive roots serve as modifiers for nouns, as in xotaan t̃han 'interrupted speech' and çippan abal 'ripe plums,' compared with yeybil uinic 'chosen man' and muxbil taab 'ground salt.' The use of -bil participles as modifiers is illustrated in context in the following example:

(55) hex kin bin katabac tiob lae y ahau tzahbil hee
 'and this sun here that will be requested of them: a huge fried egg' (Gordon 1913:29)

The same indeterminacy is evident in the glosses for participles derived from root transitives with -b'il in Modern Yucatec (V. Bricker et al. 1998:378–379):

(56) Transitive			
Root	Gloss	Participle	Gloss
ʔuk'	to drink	ʔuk'b'il	liquified
b'ah	to nail	b'ahb'il	nailed
çah	to fry	çahb'il	fried, pureed
ç'eh	to chip, crack /seeds/	ç'ehb'il	cracked
čak	to boil, parboil	čakb'il	boiled
koç'	to roll up, curl up, coil up	koç'b'il	rolled up
puk'	to dilute, dissolve, mix	puk'b'il	dissolved

to?	to wrap	tó?ob'il	wrapped
t'an	to speak, call, address	t'anb'il	spoken

When such participles are used as modifiers in Modern Yucatec, they have no temporal implications:

- (57a) k'ab'éet a *ç*iç=há?atik y éetel t'anb'il ha?
'you must sprinkle them with blessed water' (V. Bricker et al. 1998:289)
- (57b) t u mak'ah yáač'b'il wàah
'he ate porridge [literally, crushed tortillas]' (V. Bricker et al. 1998:178)
- (57c) hé?el e čakb'il wàak(a)ša?
'here is this boiled beef' (V. Bricker 1981a:244, line 891)

In other contexts, such participles refer to the future in Modern Yucatec:

- (58a) pìinpim wàah k u b'èetá?ale? u tì?á?al *ç*'áahb'il tì?ó?ob'
'the thick tortillas that were made in order to be given to them' (SOT971B:14)
- (58b) wáah k'učukó?ob' b'eya? áay dyos míiyoh
'if they arrived like this, oh my God,
- tóokb'il* u mèentb'il
it would be burned' (V. Bricker 1981a:228, lines 44–46)
- (58c) mú? páahtal u b'in č'á?ab'il u hèel
'they were not able to go for replacements to be taken' (V. Bricker 1981a:233, line 393)

Participles could also be derived from intransitive verbs with -bil in Colonial Yucatec, but in such participles a -VI suffix was interposed between the intransitive root and -bil, which was not the case with participles derived from intransitive roots with -(a)an:

(59)	Intransitive	-(a)an	-bil
	<u>Root</u>	<u>Participle</u>	<u>Participle</u>
	em	emaan	emelbil
	'descend, come down'	'descended, downhill'	'descendible'
	kaah	kahan	kahalbil
	'remember'	'memorized, sensed, noticed, realized'	'from time to time'
	naac	nacan	nacalbil
	'rise, climb'	'raised'	'climbing, rising'
	oc	ocean	ocolbil ³
	'enter'	'entered, begun'	'accessible'

It is not clear whether the -bil participle represented a secondary derivation based on the -VI participle derived from intransitive roots (see 3.3. below) or on the imperfective stem of the intransitive verb, which was also marked by -VI (emel, káahal, náacal, ocol).

Unlike intransitive participles marked by -bil, participles could be derived from nouns by suffixing -bil to the nominal root itself:

(60)	Nominal		-bil	
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	bool	payment, reward, daily wage; price, value	boolbil	to be paid
	tzen	person raised by another	tzenbil	reared, supported, fed, nourished
	can	talk, chat, conversation, story, sermon	canbil	recounted, told
	yam	interval, distance, concavity between two things	yambil	intermittently, sporadically, from time to time
	kak	fire, open flame	kakbil	roasted
	kool	thick sauce or gravy made of sliced bread or corn dough	koolbil	stewed
	ol	heart (non-corporeal); mind, will, desire, energy, spirit	olbil	voluntary
	pib	pit oven	pibbil	baked in pit oven
	taab	salt	tabbil	salted [so that it will not spoil]

Three of these participles—boolbil, canbil, and kakbil—have counterparts with -(a)an and similar or identical meanings (compare with boolaan, canaan, and kakan in [46] above). A contextual example of the use of kakbil as a modifier appears below:

- (61) y oklal u ɔa ci kakbil bak v hante ɔulob y etel cappitanob t u laca
 'because he gave well roasted meat to the foreigners to eat and all the captains' (Gordon 1913:63)

The Hocaba dictionary of Modern Yucatec contains three examples of participles derived from nominal roots with -b'il (V. Bricker et al. 1998:379):

(62)	Nominal	-bil	
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>
	k'áak'	flame, fire	k'áaʔb'il
	k'óol	thick sauce or gravy	k'óolb'il
	yúʔup'	crumb	yúʔup'b'il
			<u>Gloss</u>
			broiled
			sauced
			crumbled

The first two sets of examples are cognates of nominal roots and -bil participles derived from them in Colonial Yucatec (see [60] above). Their use as modifiers of nouns is well documented for Modern Yucatec: k'áaʔb'il ʔiik 'broiled chili,' k'áaʔb'il kàaš 'broiled chicken,' k'óolb'il kùuʔ 'sauced turkey' (V. Bricker et al. 1998:143, 156).

3.3. PARTICIPLES MARKED BY -VL. The two right-hand columns of (35) in Chapter 3 list 26 participles marked by -VL in Colonial Yucatec and their glosses. As explained by 2.3.2.1. in that chapter, the vowels in both syllables in such participles were short in Colonial times and for that reason contrasted with both the passive and mediopassive stems derived from the same transitive roots with -VL suffixes, the first syllables of which were heavy or long. The scribe(s) who compiled the *Calepino de Motul* noted this contrast in vowel length or weight and, in almost all cases, specified that the final syllable of the participial examples was stressed, contrasting in this respect with passive and mediopassive stems, in which the first syllable was stressed.

Over time, the vowel in the first of the two syllables in -VL participles was lengthened and acquired low or falling tone; the resulting heavy syllable acquired stress, mimicking the stress pattern of passive and mediopassive stems (see 2.3.2.2. in Chapter 3). Thus, in Modern Yucatec, -VL participles differ from -VL passives and mediopassives only in tone, falling or low tone contrasting with the high tone in mediopassives ([38] in Chapter 3) and the infixed glottal stop in passives (compare the two right-hand columns in [38] with the two right-hand columns in [36] in Chapter 3).

The *Calepino de Motul* contains the following examples of -VL participles derived from intransitive roots:

(63)	Intransitive		-VL	
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	cim	to die	cimil	dead
	el	to burn	elél	burned
	man	to pass by, move	manál	healed (wound)

The *Hocaba* dictionary of Modern Yucatec documents six examples of such participles (V. Bricker et al. 1998:373–374), one of which is a cognate of *cimil* in (63):

(64)	Intransitive	-VL		
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	kíim	to die	kíimil	dead
	kóoh	to arrive	kòohol	arrived
	líik'	to rise, ascend	líik'il	raised
	lúub'	to fall	lùub'ul	fallen
	máan	to pass by, move	màanal	exceedingly
	púuǵ'	to flee, elope	pùuǵ'ul	fugitive

It is noteworthy that the intransitive roots from which such participles are derived have the same shape as the first syllable of the mediopassive stems that are the source of -VL participles in (38) in Chapter 3. The vowel in the intransitive root is long with a high or rising tone, like the vowel in the first syllable of the mediopassive stem. It contrasts with the vowel in the first syllable of the corresponding participle, whose tone is low or falling in both cases.

4. PLURALIZATION

The third-person plural suffix, -ob, co-occurred with adjectival as well as verbal and nominal roots and stems in Colonial Yucatec. This usage is documented in the following examples, the first in an adjectival phrase (*ci* ol 'happy') and the second with two participles (*buthán* 'filled, stuffed' and *calan* 'drunk, intoxicated'):

- (65a) cijob y ol in mehenob
'my sons are happy' (Ciudad Real 1600?: fol. 43v)
- (65b) he vinicob buthanob ti ci calanobe ma vchac y almah=xicinob bax v tzeecob
'these men who are full of wine and drunk, they are not capable of giving advice!' (Ciudad Real 1600?: fol. 302r)

Another example of -ob suffixed to a participle (tzolanob 'set in order') can be found in (54b) above.

There is also a collective plural suffix, -tac, that co-occurred only with adjectival roots and adjectival and participial stems in Colonial Yucatec:

(66)	Adjectival Root/Stem	Gloss	Collective Plural	Gloss
	ɔanaan	joined, assembled, piled up	ɔanaantac	joined, assembled, piled up
	chauac	long	chauactac	long
	ya	painful, sore; grave, serious	yatac	serious, grave
	kux	painful	kuxtac	feverish, aching
	lob	bad, evil	lobtac	evil, bad
	mehen	small	mehentac	small
	nuc	fat, thick, bulky	nuctac	thick, fat, bulky (wood, tree, large tree)

Several examples of their use in context appear below:

- (67a) he vinicob lobtac v thanobe baci a tac=chite v thanob
'men whose words are bad prevent you from speaking' (Ciudad Real 1600?: fol. 400r)
- (67b) he u ɔacal lae pah taan y limones va ix sisal xiu mehentace
'here is the remedy: sour ashes and lemons or life plants⁴ that are small' (Gordon 1913:81)
- (67c) ɔanaantac vinicob ti y otoch ku
'people are assembled in the church' (Ciudad Real 1600?: fol. 126v)

The cognate of -tac is -tak in Modern Yucatec, where it is suffixed to three adjectival roots, two of which already have plural meanings (V. Bricker et al. 1998:182, 201):

(68)	Adjectival Root/Stem	Gloss	Collective Plural	Gloss
	čak	red, pink, orange,	čaktak	red
	mehen	small (plural)	mehentak	small (plural)
	nùuk	big (plural)	nùuktak	big (plural)

The plural meaning of mehen is attested in two examples in the Hocaba dictionary: mehen pèek 'small dogs' and mehen ġ'ul 'gleanings' (V. Bricker et al. 1998:182). It is also documented in a contextual example from the town of Ebtun, where I lived during the spring of 1979:

- (69a) b'ey ?iknal mehen k'é?eno? kim b'isik túun ho?
'thus with piglets there, I took them to Merida' (EBT979A)

There are also contextual examples of mehentak in Modern Yucatec:

- (69b) mehentakó?on ká?ah ?úuč lelo?
'we were small when that happened' (PEN971:1)
- (69c) t u mēen tó?one? mehentakó?on ká?ah kíim letí?ó?ob'
'because, as for us, we were small when they died' (PEN971:6)

Strictly speaking, the -tak suffix is redundant in mehentak because mehen alone has a plural meaning. An even greater redundancy is apparent in an example of nùuktakó?ob' 'they are big,' which has two plural suffixes, -tak and -ó?ob', in the Hocaba dictionary (V. Bricker et al. 1998:201), as well as in a text from Sotuta:

- (70a) yàan asyendah nùuktakó?ob' té?elo?
there were large plantations there' (SOT971B:23)

Another text has an example of nùuktakó?on, paralleling the examples of mehentakó?on in (69b–c):

- (70b) máahtik tí? tene? k'ahá?an má? nùuktakó?on b'eyo?
'don't you see that I am reminded that we were not grown yet' (CHC971:6)

Reduplicated participles represent another kind of plural in the sense that they refer to the results of repeated actions. The Calepino de Motul lists three such participles that were derived from root transitives and co-occurred with -tac:

(71)	Transitive		Reduplicated	
	<u>Root</u>	<u>Gloss</u>	<u>Participle</u>	<u>Gloss</u>
	çut	to return, revolve	çuzu(t)tac	going around
	ppin	to set trap with twigs	ppinppintac	set with twigs and tallow (rope trap)
	ppuz	to bend, arch	ppuppuztac	bent

Contextual examples of çuzu(t)tac and ppuppuztac appear below:

- (72a) çuzutac tzimin y ok chen
'revolving horse of the draw-well' (Ciudad Real 1600?: fol. 110r)
- (72b) çuzutac Juan chichi na
'John is going around from house to house' (Ciudad Real 1600?: fol. 110r)
- (72c) ppuppuztac u pach Juan
'John's back is hunching' (Ciudad Real 1600?: fol. 394v)

Reduplicated participles are considered further in **2.** in Chapter 13.

5. ADJECTIVAL COMPOUNDS

Compounds with adjectival meanings were formed by combining adjectival roots with adjectival, nominal, and verbal roots and stems in Colonial Yucatec. In the following compounds, mentioned in the *Calepino de Motul*, an adjectival root is followed by another adjectival root:

(73)	Adjectival <u>Root</u> cich 'good, fine, holy'	Adjectival <u>Root</u> celem 'strong, robust, vigorous'	<u>Compound</u> cich=celem 'handsome, graceful, elegant'
	çac 'white; false'	EEK 'black'	çac=EEK 'brown'
	çiz 'cold, cool'	chacau 'hot, warm'	çiz=chacau 'lukewarm'
	lah 'all'	cet 'equal, even; jointly, together'	lah=cet 'equal, even; together'
	num 'much, excessive'	naah 'sufficient, full, complete'	num=naah 'complete, very full [with food]'
	on 'much, many'	kaaz 'bad, ugly'	on=kaaz 'loquacious, deceitful'

The *Calepino de Motul* contains a number of examples of adjectival compounds in which the adjectival root is followed by a nominal root, of which the following are representative:

(74)	Adjectival <u>Root</u> cij 'sweet, tasty, delicious, pleasant'	Nominal <u>Root</u> ol 'heart (non-corporeal); mind, will, desire, energy, spirit'	<u>Compound</u> cij=ol 'healthy'
	co 'crazy, foolish, insolent, boisterous, roguish, cunning, deceitful'	ich 'eye, sight; face, facial expression, visage'	co=ich 'frivolous, lewd, shameless in appearance'
	tzeem 'thin, feeble, frail'	ol 'heart (non-corporeal); mind, will, desire, energy, spirit'	tzeem=ol 'pusillanimous, faint-hearted'

kul 'very much; hardened (fruit), bright'	pacat 'sight, eyes; light; aspect'	kul=pacat 'impudent, saucy, shameless, mischievous, insolent, fascinated, enchanted'
nach 'far, distant, extended, long (shadow)'	pach 'back, rear, side'	nach=pach 'outcast, rejected, despised'
num 'excessive, much'	ya 'pain, misery, misfortune'	num=ya 'miserable, difficult, painful'
tu 'stinky, rotten'	ceeb 'belch'	tuu=ceb 'bilious'

There are also a few examples of compounds in which the adjectival roots are combined with transitive roots in Colonial Yucatec. In these cases, the compounds bear the participial suffixes, -(a)an or -bil:

(75)	Adjectival <u>Root</u> çac 'white; false'	Transitive <u>Root</u> ppoo 'to wash /beard, hair/, laundry /clothes/, cleanse /soul/'	Participial <u>Compound</u> çac=ppoan 'white (clothes that have been washed)'
	çuu 'thick, dense (trees, plants, stitches in needlework, leaves on tree, leprosy)'	chuy 'to sew, embroider'	çuçu=chuyan çuçu=chuybil 'tightly sewn'
	chachal 'loosely tied, knotted'	kax 'to tie up, bind'	chachal=kaxan 'tied loosely'
	nach 'far, distant, extended, long (shadow)'	pik 'to separate, withdraw, move away'	nach=pikan 'isolated, distant, far, removed'

In others, the suffix, -en, seems to have the same function as -(a)an:

(76)	Adjectival <u>Root</u> çiz 'cold, cool'	Nominal <u>Root</u> tħub 'to submerge, sink, immerse'	<u>Compound</u> çiz=tħuben 'penetratingly cold'
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han
'clear of objects'

pik
'to separate, withdraw,
move away'

han=piken
'cleared'

The same suffix occurs frequently in compounds based on the color adjectives (eek 'black,' chac 'red,' kan 'yellow,' çac 'white, and yax 'green'), which are discussed at length in 3.1. in Chapter 12.

The Hocaba dictionary of Modern Yucatec contains many fewer examples of adjectival compounds. There are six compounds that combine adjectival and nominal roots:

(77)	Adjectival <u>Root</u> ʔal 'heavy'	Nominal <u>Root</u> hóʔol 'head, hair'	<u>Compound</u> ʔal=hóʔol 'weighted unevenly'
	kul 'short'	kàal 'neck, throat'	kul=kàal 'short-necked'
	p'ič 'short, reduced'	neh 'tail'	p'ič=neh 'short-tailed'
	sak 'white; false'	ʔiik' 'wind, air, breath'	sak=ʔiik' 'still (no wind)'
	sáʔak' 'active'	ʔóol 'heart, will, energy, spirit'	sáʔak'=ʔóol 'active, industrious'
	tuʔ 'stinky, rotten'	kèeb' 'belch'	túʔu=kèeb' 'bilious'

Transitive roots follow adjectival roots in three compounds:

(78)	Adjectival <u>Root</u> čak 'red, pink, orange, rust-colored'	Transitive <u>Root</u> nul 'to bruise, mangle, stub'	<u>Compound</u> čak=nul 'naked'
	kiʔ 'tasty, delicious'	b'ok 'to perfume, fumigate'	kíʔi=b'ok 'fragrant'
	tuʔ 'stinky, rotten'	b'ok 'to perfume, fumigate'	túʔu=b'ok 'stinky'

There is only one unambiguous example of a compound based on two adjectival roots in the Hocaba dictionary: čéʔeh=čak 'rare (meat)' (< čeʔ 'raw' and čak 'red, pink, orange, rust-colored').

The only adjectival compounds that are well attested in Modern Yucatec are those based on color terms followed by transitive, intransitive, positional, nominal, and other adjectival roots. As explained in 3.2. in Chapter 12, they are marked by an -é?en suffix, which is the Modern cognate of the -en suffix in Colonial Yucatec.

6. ADJECTIVAL PHRASES

Adjectival phrases composed of an adjective followed by a noun can be distinguished from compounds based on the same roots in terms of whether the noun is inflected for possession with a clitic pronoun. For example, the Calepino de Motul contains examples of an adjectival compound and a phrase based on the adjective, *toh* 'straight, direct,' and the noun, *ol* 'heart (non-corporeal); mind, will, desire, energy, spirit,' which together mean 'fine, well, healthy':

- (79a) *toh=ol va a yum*
'is your father healthy?' (Ciudad Real 1600?: fol. 425v)

- (79b) *toh va y ol a yum*
'is your father healthy?' (Ciudad Real 1600?: fol. 425v)

In (79a), the noun in the compound (*toh=ol*) lacks a possessive clitic pronoun, whereas in (79b), the noun is preceded by the clitic pronoun: *y ol*. The same is true of *tòoh uy óol* in (79c), which is the Modern cognate of *toh y ol* in Colonial Yucatec:

- (79c) *in sukú?une? hač tòoh uy óol*
'my older brother, he is very healthy' (V. Bricker et al. 1998:278)

Another minimal pair in Colonial Yucatec, contrasting the constituents of a compound with those of a phrase, is based on the same noun (*ol*) and the adjective, *tzeem* 'thin, feeble, frail,' which together mean 'pusillanimous, faint-hearted':

- (80a) *hach tzeem=ol-ech*
'you are very pusillanimous!' (Ciudad Real 1600?: fol. 117v)

- (80b) *tzeem au ol*
'you are pusillanimous' (Ciudad Real 1600?: fol. 117v)

Two forms of the second-person pronoun appear in these examples. In (80a), the compound is treated as an unbroken unit, with the pronominal suffix, *-ech*, at the end, whereas in (80b), the clitic pronoun separates the noun from the adjective, marking the expression as a phrase.

A comparable pair of examples in Modern Yucatec is based on the noun, *b'òok* 'odor, smell,' and the adjectives, *ki?* 'tasty, delicious' and *tu?* 'stinky, rotten':

- (81a) *le lòola? kî?i=b'ok*
'this flower is fragrant' (V. Bricker et al. 1998:34)

- (81b) tu? ʉ b'òok le b'ak'a?
 'this meat stinks' (V. Bricker et al. 1998:34)

Although the adjectives in these examples are different, their relationship to the noun contrasts the compound (kíʔi=b'ok) in (81a) without a clitic pronoun with the phrase in (81b), in which the clitic pronoun separates the adjective (tu?) from the noun (b'òok).

7. SUMMARY OF ADJECTIVAL CHANGES THROUGH TIME

Six of the fourteen suffixes with which adjectives were derived from nominal, verbal, and adjectival roots in Colonial Yucatec became rare or disappeared altogether in the course of time. One of them (-tzil) was equivalent to the suffix, -able, in English. Another (-liz) co-occurred with numeral classifiers, producing adjectives that referred to duration. Still another (-lac) supplied celeritive and inchoative stems with a gerundial meaning. The remaining suffixes did not have distinctive semantic components.

NOTES

1. A variant of yáʔab'ač is yáʔakač in Modern Yucatec.
2. A variant of çaatayom was çayom in Colonial Yucatec.
3. The Calepino de Motul also lists ocbil 'entered, begun', contrasting ocolbil c'heen 'accessible well' with ocbil v c'habal haai 'water is fetched up by descending [into a sinkhole]' (Ciudad Real 1600?: fol. 341r).
4. *Bryophyllum pinnatum* (Lam.) Kurz.

CHAPTER 11

POSITIONALS

Both Colonial and Modern Yucatec have a form class of positional roots, from which adjectival and intransitive stems may be derived with suffixes that contrast with those co-occurring with other roots. In addition, positional roots can be distinguished from other kinds of roots semantically. In general, positional roots refer to physical states or positions, such as standing, sitting, kneeling, hanging, lying down, leaning, bending, and bowing that human beings, animals, and inanimate objects can assume:

(1)	Colonial	Modern	Gloss
	ac	ʔak	settle, form puddles, seat firmly
	cah	kah	reside, settle
	coɔ	koɕʔ	roll up, curl up, coil up
	cop	kop	fold oneself up, curl or twist self
	cul	kul	sit down; reside; be in a place
	çin	sin	stretch out, spread out
	tsel	ɕel	lie on one's side; be on one's side
	tzol	ɕol	be aligned
	chel	čil	lie down, stretch out, lie full length, be stretched out, lying down; dismissed
	chin	čin	bow, grovel; be ashamed
	chok	čokʔ	cram, stuff, compress, crowd, pack tightly
	chau	č'aw	fall, hang over, dangle (branch of tree)
	čheb	č'ebʔ	be tilted, lean to one side
	chuy	č'uy	hang, dangle
	eo	ʔèeɕʔ	settle in place
	hau	haw	lie face up, look face up, stretch out lying on back
	hay	hay	spread out, extend
	hec	hek	spread open (arms, legs, books), open wide (doors, windows)
	hen	hen	sprawl, become loose (load of corn or wood)
	hoch	hočʔ	fall in heap (clothes on floor)
	hot	hot	bend over to ground
	huc	huk	be stretched out with arms and legs extended
	kat	k'at	lie across
	kech	k'eč	tilt
	lap	lap	place between two objects

lech	leč	hang from pole or shoulder (clothing, axe)
loch	loč	curl up
mec	mek	twist, bend
mech	meč	twist, bend (branches, beams)
met	met	twist, curl up, coil up
moth	mot'	stoop, squat, crouch, cower
much	muč'	pile up
nac	nak	lean against
nak	nak'	place against
noc	nok	lie face down; lean against; turn upside down; fall (dead trees)
pac	pak	brood (hen or bird on eggs); lean over
pach	pač'	hang, dangle; be thrown down, disarranged
pec	pek	stretch out at full length
ppoh	p'oh	bend over
ppuuz	p'us	bend, hump up, swell
ppum	p'um	arch, bend, curve, encurve
tak	tak'	stick, adhere
tich	tič	protrude, extrude
tich	tič'	protrude
tipp	tip'	increase, appear
tuc	tuk	pile up quickly
tuc	tuč'	be extended, stretched out (timber, legs, arms)
tuch	tuč'	become erect
thijb	t'ib'	be on all fours (wild animals)
thon	t'on	lean, droop [from sickness]
thoy	t'oy	hang, droop, faint, swoon
thub	t'ub'	submerge
thuch	t'uč	perch, squat, rest
ual	wáʔal	stand up, stop
xac	šak	bend over, fall on hands and knees
xol	šol	steady, prop up; kneel

Many positional roots are polyvalent, sharing the same form and related meanings with transitive roots, as is the case with the ones in boldface in (1) above. For example, the positional root chin (phonetic [čín]) means 'bow, grovel' in Modern Yucatec, and its root transitive counterpart (also čín) means 'to bend.'

1. POSITIONAL ADJECTIVES

1.1. POSITIONAL ADJECTIVES IN COLONIAL YUCATEC. Positional adjectives were derived from positional roots by suffixing -cabal to the root in Colonial Yucatec. The Calepino de Motul contains 53 examples of positional adjectives, of which the following are illustrative:

- (2) ac-cabal 'seated placed firmly'
 coy-cabal 'tilted, inclined to one side'
 ɔan-cabal 'piled up, assembled, joined'

chin-cabal 'bowed, humbled'
 kech-cabal 'twisted'
 lop-cabal 'bent, twisted, arched'
 meth-cabal 'huddled, crouched, contracted, shrunken, secluded'
 nac-cabal 'leaning'
 nix-cabal 'tilted, upset'
 ppuc-cabal 'stooped, squatting, crouched [in weeds]'
 tħub-cabal 'submerged, immersed'
 ua[l]-cabal 'erect, upright, stopped'

The -cabal suffix in a few positional adjectives was sometimes reduced to -cab:

- (3) hau-cab 'face up'
 hay-cab 'spread out, extended'
 hech-cab 'manifest, exposed'
 pach-cab 'spread out'
 pec-cab 'laid flat'
 tich-cab 'placed on high'
 ua-cab 'erect, upright'

Several examples of the use of positional adjectives in context appear below:

- (4a) kech-cabal che
 'twisted tree' (Ciudad Real 1600?: fol. 244r)
- (4b) meth-cabal pek
 'crouched dog [grayhound in a spurt]' (Ciudad Real 1600?: fol. 305v)
- (4c) va[l]-cabal Juan
 'John is standing' (Ciudad Real 1600?: fol. 437r)
- (4d) hay-cab in nok ti kin
 'my clothes are spread out in the sun' (Ciudad Real 1600?: fol. 173v)

1.2. POSITIONAL ADJECTIVES IN MODERN YUCATEC. Positional adjectives underwent a significant change in structure in the transition from Colonial to Modern Yucatec, in which a copy of the vowel in the root was inserted between the final consonant of the root and the first consonant in -cabal and the first "a" in -cabal was deleted: CVC-cabal —> CVC-V**k**b'al. This change is shown in the following examples of positional adjectives in the Calepino de Motul with their Modern counterparts:

(5)	Classical (CVC-cabal)	Modern (CVC-V k b'al)	Gloss
	ac- <u>cabal</u>	ʔak- a kb'al	seated, placed firmly
	coo- <u>cabal</u>	koŋ'- o kb'al	rolled up, coiled up
	cop- <u>cabal</u>	kop- o kb'al	coiled, twisted
	cul- <u>cabal</u>	kul- u kb'al	seated
	ʔan- <u>cabal</u>	ʔan- a kb'al	piled up, assembled
	ʔoz- <u>cabal</u>	ʔos- o kb'al	settled

chin- <u>cabal</u>	č̣in-ikb'al	bowed, humbled
čheb- <u>cabal</u>	č'eb-ekb'al	tilted, leaning
eo- <u>cabal</u>	?eč'-ekb'al	seated firmly
hau- <u>cabal</u>	haw-akb'al	face up
hay- <u>cabal</u>	hay-akb'al	spread out, extended
hoc̣h- <u>cabal</u>	hoč'-okb'al	fallen
hot- <u>cabal</u>	hot-okb'al	uncovered, exposed
kech- <u>cabal</u>	k'eč'-ekb'al	twisted
mec- <u>cabal</u>	mek-ekb'al	twisted, bent
mech- <u>cabal</u>	meč'-ekb'al	twisted, bent
met- <u>cabal</u>	met-ekb'al	twisted, curled
moth- <u>cabal</u>	mot'-okb'al	stooped, squatting
nac- <u>cabal</u>	nak-akb'al	leaning
pac- <u>cabal</u>	pak-akb'al	face down
pach- <u>cabal</u>	pač'-akb'al	spread out
pec- <u>cabal</u>	pek-ekb'al	laid flat
ppoh- <u>cabal</u>	p'oh-okb'al	bent over
ppuuz- <u>cabal</u>	p'us-ukb'al	bent, arched
tic̣h- <u>cabal</u>	tič'-ikb'al	placed on high
ṭhon- <u>cabal</u>	t'on-okb'al	humble, meek
ṭhub- <u>cabal</u>	t'ub'-ukb'al	submerged
ṭhuch- <u>cabal</u>	t'uč'-ukb'al	perched suddenly
ua[ḷ]- <u>cabal</u>	waʔal-akb'al	erect, upright
xac- <u>cabal</u>	šak-akb'al	bent over to ground
xol- <u>cabal</u>	šol-okb'al	supported; kneeling

Some examples of their use in context appear below:

- (6a) way wáʔalakb'aleč ká h k'učene?
'you were standing here when I arrived' (Blair and Vermont-Salas 1967:697)
- (6b) b'eʔðoráaʔ ṭiʔ čilikb'al wal t u k'àane?
'right now he's probably lying down there in his hammock' (Blair and Vermont-Salas 1967:672)

It should be noted that positional adjectives underwent a less complex change in the transition from Colonial Yucatec to Mopan, involving only the reduction of the bilabial ejective in the suffix to a glottal stop: -cabal → -kaʔal, as in waʔ-kaʔal 'standing' (from Colonial ua-cabal) (Hofling 2011:452).

2. POSITIONAL VERBS

Positional verbs were formally intransitive in Colonial Yucatec, and the same is true of positional verbs in Modern Yucatec.

2.1. POSITIONAL VERBS IN COLONIAL YUCATEC. The principal derivational suffix for positional verbs was -l in Colonial Yucatec, and it appeared in both perfective and subjunctive stems. It was followed by -ah in perfective stems:

- (7a) $\text{çu}\text{ɔ-l-ah-i}$ can
 'the snake was stretched out' (Ciudad Real 1600?: fol. 110v)
- (7b) kaat-l-ah-i che t u co ocom
 'a tree lay across the fork of the pole' (Ciudad Real 1600?: fol. 239v)
- (7c) much-l-ah-i tanam y alan booy
 'the sheep piled up in the shade' (Ciudad Real 1600?: fol. 311r)
- (7d) $\text{caanil kan cum-l-ah-ci}$ pop
 'on 4 Kan, Pop was seated' (Gordon 1913:76)

The subjunctive suffix of positional verbs was marked by -l-ac:

- (8a) $\text{lai ma cu[l-l-ac-en}$ cuchi ca vilah v talel
 'scarcely had I sat down when I saw him come' (Ciudad Real 1600?: fol. 260v)
- (8b) ca bin cum-l-ac v yanal katun
 'and another katun will be seated' (Gordon 1913:45)
- (8c) coy-l-ac te t u çamoob
 'they might be tilted there in their thrones' (Gordon 1913:107)

The imperfective stem of positional verbs was marked by -tal in Colonial Yucatec:

- (9a) $\text{amal ni che u cul-tal}$ chich
 'on each point of the tree sits a bird' (Ciudad Real 1600?: fol. 36v)
- (9b) hunab u chel-tal
 'he lies down alone' (Ciudad Real 1600?: fol. 195v)
- (9c) $\text{lic tun yn cum-tal}$ t in kan=che
 'I sit on my stool' (Gordon 1913:66)

2.2. POSITIONAL VERBS IN MODERN YUCATEC. The stem suffixes of positional verbs are -tal (imperfective), -l-ah (perfective), and -l-ak (subjunctive) in Modern Yucatec. Their use with the positional root, čil 'lie down,' is shown in (10a-c) below:

- (10a) $\text{t\`{a}ak u \text{č}i[l-l-tal}$ wal t u k'àano?
 'he's probably lying down there in his hammock' (Blair and Vermont-Salas 1967: 692)
- (10b) $\text{hač \text{ʔ}aak'ab'čah ka \text{č}i[l-l-ah-en}$ wenel
 'it was late when I lay down to sleep' (Blair and Vermont-Salas 1967: 691)
- (10c) $\text{tene? w\`{a} b'íin \text{č}i[l-l-ak-en}$ b'e?òoráa? ma? táan in? wenel
 'as for me, if I will lie down now, I won't sleep' (Blair and Vermont-Salas 1967: 691)

3. SUMMARY OF CHANGES IN POSITIONALS THROUGH TIME

The only change in positionals involved converting the suffix that derived positional adjectives from positional roots in Colonial Yucatec from -cabal to -Vkb'al in Modern Yucatec. The earliest evidence of this change in my database can be dated to 1850:

- (11a) t u men hach talan keban u cimsal cristiano etas xolocbal u con u kaba in yume
'because it is a most grievous sin for a Christian to be killed while kneeling [and] mentioning my Father's name' (V. Bricker 1981a:194, lines 245–247)

- (11b) t u men llan y et=sihsahbilob xolocbalob u kat u kaba in yum cat cimsahob
'because there were fellow-creatures kneeling [and] calling my Father's name when they were killed' (V. Bricker 1981a:201, lines 479–482)

- (11c) ma helecbaleni
'I am not resting' (V. Bricker 1981a:201, line 495)

CHAPTER 12

AFFECTS

Like other Mayan languages, Colonial and Modern Yucatec have a semantically defined class of verbs and related adjectives known as “affects” that are morphologically distinct from other verbs and adjectives. Laughlin’s (1975:26) description of the function of verbal affects in Tzotzil applies equally well to Yucatecan Maya: “Affective verbs are used characteristically in narrative description with a certain gusto, a desire to convey a vivid impression. They have dash.” Adjectival affects were first identified in Yucatecan Maya by Hanks (1982). More recently, it has become clear that color compounds represent a subclass of adjectival affects (V. Bricker 1999).

1. VERBAL AFFECTS

1.1. VERBAL AFFECTS IN COLONIAL YUCATEC. The semantic characteristics of two kinds of intransitive verbs in Colonial Yucatec qualified them to be classified as affects. One of them was marked by -m in its imperfective and perfective stems. The other was marked by -ancil or -ancal in its imperfective stem, but took the antipassive suffix -n in its perfective stem.

1.1.1. VERBAL AFFECTS MARKED BY -M. The -m affects are listed in the first two columns of Table 12-1, with the -m-al suffixes that mark their imperfective stem. Some examples of their use in context appear below:

- (1a) bax ma tan y ulmal au olex cex ah çipile
‘why don’t you sinners become soft-hearted?’ (Ciudad Real 1600?: fol. 451r)
- (1b) bax than a xaxmal
‘why are you passing to one side while encircling?’ (Ciudad Real 1600?: fol. 456r)
- (1c) taanbez buul ca maac v xohmal
‘mix the beans with lime so that they do not become worm-eaten!’ (Ciudad Real 1600?: fol. 411r)
- (1d) ca nabes y o[k]ol ax v chuuchmal t u menel lae
‘you may smear it over the wart; it shrinks because of this’ (Kaua n.d.:II,45L)

Table 12-1. Colonial affect verbs and related adjectives in the Calepino de Motul (Ciudad Real 1600?).

Verb	Gloss	Adjective	Gloss
achmal	become juicy, greasy	—	
aymal	become sticky, greasy, bright with grease	aayci	juicy, greasy, sticky
akmal	become humid, greasy	aakci	humid, greasy
almal	become soft (wax) [in sun or fire]	—	
bahmal	become hard, dry [like clay]; shrink, shrivel (limb, skin, needlework)	babahci	hard, stiff (dough, bread, mud, wood, tree), unyielding, shrunken (skin, limb)
bakmal	become entangled, snarled; move back and forth	—	
—		babaici	smooth, combed (hair)
—		bibici	slightly patched ?
bilmal	go along flinging weeds, plants, or corn	bibilci	trampled, dragged along
bixmal	become hard (beans)	—	
bohmal	become dessicated (wound, skin, parchment)	bobohci	drying, dessicating (wound); dry (bark of trees); filthy
bothmal	become bruised	—	
buomal	stink of smoke	—	
canmal	become hard (clay, bread)	cancanci	swollen (body part), tightened, hard (clay, wood, stone); disheveled (hair)
cibmal	become stained, soiled (clothes)	cicibci	filthy, dirty
ciomal	become filthy, stained (clothes)	—	
—		cicipci	smooth, slippery (soap)
—		cocotzci	brittle, fragile, easily burst (cord, thread)
—		cocooci	rolled up (parchment)
—		cocohci	tight, compressed, tightly pressed, thick (closely spaced stakes)
—		cocolci	loose
copmal	become coiled like a hoop	cocopci	arched, bent, folded
cucmal	faint, swoon (patient); become worn out, frayed (cloth)	cucucci	fainting, swooning

Table 12-1. (cont'd) Colonial affect verbs and related adjectives in the Calepino de Motul.

Verb	Gloss	Adjective	Gloss
cucmal	become very ripe	cucucci	very ripe (fruit)
—		cucutzci	unravelled at top or bottom (cloth)
cuchmal	become rusty (knife, needle)	cucuchci	taken treacherously
cuymal	harden, become hardened (fruit without ripening)	cucuyci	hardened (fruit); clumsy (man walking)
—		cuculci	hard, hardened (abscess, pimple, boil)
—		cuculci	noisy, clattering
—		çaçahci	dry, parched by the sun (leaves of tree)
çaomal	become stretched, extended	—	
çalmal	become dry (clothes, earth)	çabçalci	drying after being wet {çalçalci misspelled}
çijmal	dry out (tobacco leaves over hot coals, leaves on tree, vegetation in cornfield in hot sun)	çiçiçi	very parched (plant)
çizmal	become chilled	cicizci	very parched (plant) {çiçiçi misspelled}
çikmal	become disarranged, disheveled	—	
—		çinçinci	extended, stretched
çooimal	become dry dessicated, withered	—	
çotmal	become pot-bellied, dropsical bloated, overfed (beast)	çozotci	swollen, full of air (wine bag), inflated, stuffed (stomach full of food or gas)
—		cuzulci	soft, very ripe (fruit) {çuzulci misspelled}
tzamal	run out, become exhausted little by little (food)	—	
tzatzmal	become rough, not polished (work)	—	
tzaymal	stick to something	tzaytzayci	very sticky
—		tzitzici	unravelled
tzihmal	reek of urine	—	
—		çacaci	humid

Table 12-1. (cont'd) Colonial affect verbs and related adjectives in the Calepino de Motul.

Verb	Gloss	Adjective	Gloss
ɔibmal	go along smoothing the bitumen or road	—	
ɔucmal	become, damp, moist, humid	—	
ɔucmal	wither away, shrivel up	—	
chalma	become loose (tied object), be alleviated (illness, pain, hardship) { <u>chalmal</u> misspelled ?}	—	
chijmil ol	become angry	—	
chochmal	go about loosening tied objects	—	
chohmal	shoe horse	—	
chokmal	grow thickly, densely (corn, plants)	—	
chuchmal	rot, wither (fruit, flower)	—	
—		chāchāci	remembering or learning quickly
chāmal	melt (wax, grease)	chacchalci	melting in sun or fire (wax, grease) { <u>chacchalci</u> misspelled}
—		chāchapci	greasy, dirty, filthy, stained with filth { <u>chāchapci</u> misspelled}
—		chēchēhci	very close together, tight, compact
—		chenchenci	very calm, peaceful { <u>chenchenci</u> misspelled}
chēchmal	wither, decay (corn)	—	
chōmal	putrify, suppurate (wound)	—	
chūmal	ooze, leak	—	
eomal ol	pacify, calm	—	
hacmal	slip, slide	hahacci	slippery, slick
—		hahaci	shiny (knife, glossy horse, combed hair of a woman) { <u>hahacci</u> misspelled ?}
hatħmal	collapse, smash (figs)	—	
haxmal	wither, dry up (plants); curl, twist (hair)	hahaxci	curly

Table 12-1. (cont'd) Colonial affect verbs and related adjectives in the Calepino de Motul.

Verb	Gloss	Adjective	Gloss
haymal	become soft, flattened (very ripe fruit that falls from the tree onto hard surface)	—	
heppmal	creak, squeak (wood)	heheppci	creaking, squeaking
hijzmal	ravel (linen or other cloth), fuzz (rope from friction)	—	
hootzmal	frown in anger	—	
hokmal	be caught, hooked	—	
hokmal	rot (plants, roots, pumpkins)	—	
hólmal	become slippery, smooth	holholci	slippery, smooth
hoxmal	be rough	hoxhoxci	rough
—		huhuchci	dense, thick, close-woven (blanket, basket)
—		huhutñci	narrow, tight (road)
kahmal	dry, parch in sun (corn, bananas)	—	
kahmal	dry up, wither, parch in the sun or with fire (plants, meat, fruits to preserve them for the future) { <u>kakmal</u> misspelled}	—	
—		kakaxci	tied very tightly
kechmal	become twisted, deviated	—	
kijchmal	rust	—	
kohmal	mask, disguise oneself	—	
kuunmal	become soft	—	
—		lalabci	rotten (plants, roots)
lacmal	coagulate, curdle; become blunt or dull	láclácci	coagulating, curdling
lappmal	become tighter, stronger (bindings of thatched houses)	—	
lemmal	become tight (bindings)	lemlemci	strong, robust, tied tightly
—		loloci	damp, humid (perspiration, fog, drizzle)
lotzmal	coagulate, curdle	lotzlotzci	coagulated, curdled
loppmal	shrink, wrinkle (leather, parchment)	—	

Table 12-1. (cont'd) Colonial affect verbs and related adjectives in the Calepino de Motul.

Verb	Gloss	Adjective	Gloss
loṯmal	shrink, wrinkle (leather, parchment, arm, leg)	—	
luumal	become soaked or soggy (clothes, soil, fish), soft when becoming wet or in a humid place (tail, leather, parchment, jerked beef, dried fish)	luluci	soft, soaked
mazmal	fray, wear out (cord rubbing against something hard)	mazmazci	fraying, wearing out (cord)
makmal	become soft, tender (lettuce, <u>chaya</u> leaves, well-cooked meat)	mamakci	soft, tender
motzmal	shrink, contract (thread, rawhide, parchment, nerves) var. <u>motzmul</u>	—	
mochmal	become lame, crippled, disabled	mochmochci	retracted, pulled back, shrunken, lame, crippled
moṯmal	tangle (hair)	—	
muɔmal	wrinkle, wither, fade (plants, trees); decrease var. <u>muɔmul</u>	—	
muchmal	wither, fade, decay; curl (hair), ruffle var. <u>muchmul</u>	—	
—		mumukci	patient, long-suffering
—		mulmulci	piled up
—		muymuyci	pulverized, sifted
		mumuyci	pulverized, sifted
nachmal	become tight, narrow (dress); become weak from illness	—	
nakmal	lose weight	—	
nakmal	burn, scorch (pot, frying pan, caldron)	—	
nochmal	become very thin, lose much weight	—	
nolmal	harden; become dull	nolnolci	hardened (clay, bread)
		nonolci	hardened (clay, bread)
noṯmal	become very thin, lose much weight; wear out, dry up (land)	nonoṯci	thin, feeble, frail (man because of some illness); poor, impoverished, dried out (soil that lacks moisture and substance and is not good for cornfields, where there are rocks)

Table 12-1. (cont'd) Colonial affect verbs and related adjectives in the Calepino de Motul.

Verb	Gloss	Adjective	Gloss
nulmal	harden; become dull	—	
oɔmal	wrinkle	oɔɔci	wrinkling
oolmal	become soft (plants, shoots)	—	
oppmal	drying out from fire or sun (corn, bread)	ooppci	dried out from too much toasting, roasting, or cooking
pakmal	stick, go about sticking one thing to another	papachci	stuck, sticky, viscous { <u>papakci</u> misspelled}
pecmal	be down and very sick from weakness without being able to get up; be lying down or sleeping all day long	—	
pechmal	be tasteless because of lack of fire (boiled or roasted food)	—	
pečmal	become smashed, flattened (early fruit of fig tree, wax)	—	
—		pipizci	ordinary, common
pitmal	become loose from being poorly tied	—	
poɔmal	leak out (liquid); be very muddy; get stuck in mud	—	
pokmal	become drenched from a heavy shower, soaked or saturated in water or from heavy perspiration	pokpokci	drenched
potmal	slip, slide, slide along	popotci	smooth, slippery
poxmal	stuff, inflate (stomach)	popoxci	stuffed
		poxpoxci	stuffed
puzmal	dry in the sun (like drying earth)	—	
ppomal	drench with perspiration	ppooppoci	filthy and drenched with perspiration (clothes)
ppochmal	be gradually overloaded with fruit	—	
ppotmal	go with curled or wavy hair	—	
ppulmal	gorge	ppulppulci	stuffed, swollen (boot)
—		ppuuypuyci	abraded, crumbled
takmal	become sticky	—	
—		tepalci	enough

Table 12-1. (cont'd) Colonial affect verbs and related adjectives in the Calepino de Motul.

Verb	Gloss	Adjective	Gloss
teppmal	go about swelling	teppteppci	swollen, taut
—		titici	noisy
tochmal	become impotent	—	
tohmal	become stiff	—	
tuchmal	stiffen (arm, leg, body, neck)	—	
tħanmal	become swollen, numb (foot, leg, arm)	—	
tħohmal	harden (clay, bread)	—	
uahmal	dry well (corn, beans, and vanilla in their husks or pods)	uauahci	dry (corn on the cob, beans in pod)
uilmal	sway back and forth (leaves or branches on tree from wind)	—	
vuɔmal	become wrinkled	—	
ukmal	imbibe, soak (water, ink), spread (stain); leak (water or other liquid in vessel, ink through paper)	ukukci	humid
ulmal	become soft (fish in water), seasoned well (cooked food); dirty (something wet, juicy)	—	
uolmal	become dry (wound)	—	
xakmal	become disarranged, mussed (hair); decompose	—	
xaxmal	pass to one side while encircling	—	
xekmal	become overcooked (beans, chickens)	xekxekci	fallen apart from overcooking
xeppmal	swell	—	
xichmal	become full, swollen (from food, gas)	xixichci	full, stuffed, swollen
xohmal	become worm-eaten, half rotten, moth-eaten, decayed (corn, beans, teeth, wood)	—	
—		xuxulci	to the utmost
yulmal	become polished, smooth	—	

The suffix -i replaced -al in the perfective stem of such affects:

- (2a) ačmi in nok ti manteca
 'my clothes became greasy from the fat' (Ciudad Real 1600?: fol. 3v)
- (2b) hokmi çum caanal xenex chochex
 'the rope became hooked up there; go and loosen it!' (Ciudad Real 1600?: fol. 190v)
- (2c) oçmi v uich in yum
 'my father's face became wrinkled' (Ciudad Real 1600?: fol. 345r)
- (2d) pokmi in nok t u men in keluc
 'my clothes became drenched with my perspiration' (Ciudad Real 1600?: fol. 380r)

Sometime between the end of the second decade of the seventeenth century and the 1950s, -m became -b as a result of denasalization. Exactly when this process began is not evident in my database. Although this seems like a simple change in stem suffixes, of -m-al to -b-al and -m-i to -b-i, it had significant consequences because it neutralized the distinction between affects and passives of derived transitives (already -b-al and b-i). Probably for this reason, a further modification was implemented in the perfective stem of this group of verbal affects, adding the antipassive suffixes -n-ah to -b-al, yielding -b-al-n-ah-i (as in [6f–g] in **1.2.1.** below).

This change must have taken place gradually over a long period of time, because Mopan still has ca. 40 examples of verbal affects in -m-al and -m-i, compared with only ca. 20 imperfective stems with -b'a(h) (Hofling 2011:16–17). The other Yucatecan languages that are spoken today — Itsaj, Lacandon, and Modern Yucatec — have completely replaced the -m in this group of affects with -b'-al or b'-ah (see **1.2.1.** below for Modern Yucatec).

1.1.2. VERBAL AFFECTS MARKED BY -ANCIL/-ANCAL. The imperfective stems of the -ancil/-ancal affects in Colonial Yucatec are listed in Table 12-2. Examples of the use of the -ancil form in context appear in (3a–c), followed by contextual examples of the -ancal form in (3d–f):

- (3a) ma tan cici ychancil t u kinil lae
 'they are not bearing fruit well at this time' (Kaua n.d.:I, 12L)
- (3b) lay c u hach luluccancil
 'this becomes very tender' (Kaua n.d.:II, 17R)
- (3c) ti y alancil ix mehen lokbayenob
 'then the adolescent daughters give birth' (Tizimin n.d.: fol. 7v)
- (3d) lic y oltic ca yumil ti D.s vy alancal çuplal
 'if Our Lord who is God wishes it, the woman gives birth' (Kaua n.d.:II, 12L)
- (3e) xul: 24 octubre ti lic y alancal cayi
 'Xul is October 24, when fish spawn there' (Gordon 1913:23)

Table 12-2. Colonial affect verbs marked by -ancil/ancal in the Calepino de Motul (Ciudad Real 1600?).

Verb	Gloss
alancil	give birth; be fertile; lay eggs (birds); gather eggs
alancil	overflow
atancil	marry (man)
babacancil	expand, enlarge; rise, grow while rising (river)
babalancil	go into hiding
babalancil	turning, walking to and fro
babchalancil	stumble around; turn patient in bed
beelancil	rule, govern people or town
bikchalancil	wriggle about
bibikancil	wriggle
bibixancil	be slow, deliberate, lazy, late
bocancil	give off odor
bozchalancil	boil hard
bobokancil	shake violently
bothancil	bruise (flesh)
bucancil	be clothed
bubuchancil	lose time while walking, wander alone sadly
bucancil	smoke, emit smoke
cicilancil	tremble (living thing)
cocooancil	behave foolishly, commit folly
cotzpalancil	go along cutting
coolchalancil	become loose, lax
coolbalancil	become loose, lax
coolkalancil	become loose, lax
cucchalancil	revolve
cuckalancil	revolve
cucpalancil	revolve
cucuyancil	tremble
cuncumancil	make noise or sound of feet or person walking
çebchalancil	do in haste
çolancil	molt (snake, iguana); change [one's life], forsake [sins]
çuzuancil	be present frequently, attend
çutancil	rotate
çuzutancil	go around like a horse pumping water from a draw-well
tzayancil	quarrel, speak rudely, riot; var. <u>tzayanca</u> l.
tzubancil	live in concubinage
chemulancil	navigate, sail
chictalancil	come across while seeking
chuhancil	sacrifice
elancil	burn, spoil from heat; var. <u>eelancil</u> .
haazancil	suffer

Table 12-2. (cont'd) Colonial affect verbs marked by -ancil/ancal in the Calepino de Motul.

Verb	Gloss
hachilancil	invite oneself; come uninvited; var. <u>hachilincil</u> .
hakalancil	complain, grumble; become frightened, upset; be dying
hecancil	produce young ears of corn
helancil	lay eggs (birds), spawn (fish)
heheppancil	creak, squeak (wood)
hidaancil	be engrossed
homchalancil	sink
hoplancil	burn, smart (mouth or tongue from chili)
hulancil	lodge, provide hospitality
humancil	make many sounds and much noise
yamancal	recuperate, recover, have respite
yyincil	overflow, run over
ilibancil	reside with in-laws (daughter-in-law)
kabancil	be defamed, dishonored, disgraced
kelucancil	sweat
koancil	grow paunch, become fat (animal), grow wattles (turkey cock)
kuuancil	make a nest
kukancil	sprout
lahancil	conclude, cease
lakalancil	go about accompanied [positive or negative implication]; var. <u>lakilancil</u> .
loocancil	bring to a boil
lolocancil	boil violently (honey)
lolancil	flower, bloom
maklancil	become soft, tender
meexancil	sprout hair on face
motzancil	produce roots; take root
nahancil	gorge, cloy, fill to excess
nicancil	bloom, blossom, produce flowers; var. <u>nicincil</u>
nolchalancil	creak, screech, squeak
nunumancil	wander
nupancil	contradict, persecute
oomancil	boil, heat up; var. <u>oomancal</u>
oppchalancil	clatter, rustle, squeak
ootancil	throb (pus in abscess or wound)
ouoxancil	exhale or emit fumes or vapor (pot, earth)
oxancil	heal (sore, wound)
papalancil	tremble from fear and fright
pepetancil	encircle
pic̃kalancil	go about playing with women
pitkalancil	slip away
ppolancil	blister

Table 12-2. (cont'd) Colonial affect verbs marked by -ancil/ancal in the Calepino de Motul.

Verb	Gloss
teplancil	swell, tighten
tijcilancil	bustle (ants), riot (community)
tixancil	fill completely; var. <u>tixancal</u>
uecchalancil	go spilling, scattering, shedding
ueyuncil	live in concubinage
uichincil	bloom
xacalancil	creep, crawl
xayancil	separate, divide, fork (road, branches in tree)

- (3f) sac: 1 febrero licil u lolancal sacob
 'Sac is February 1, when white [flowers] bloom' (Gordon 1913:23)

Several other verbal affects in the Calepino de Motul have both -ancil and -ancal stems:

(4)	<u>-ancil Variant</u>	<u>-ancal Variant</u>	<u>Gloss</u>
	bothancil	bothancal	bruise (flesh)
	tzayancil	tzayancal	quarrel, speak rudely, riot
	mutancil	mutancal	be defamed, dishonored
	nicancil	nicancal	bloom, blossom, produce flowers
	oomancil	oomancal	boil, heat up
	tixancil	tixancal	fill completely

The alternation between /i/ and /a/ in these variants may be evidence that the vowel in question was schwa (see 2.3.3. in Chapter 3).

The perfective stem of the -ancil/-ancal affects was marked by the antipassive suffix, -n:

- (5a) oomni in kikel t u men kin
 'my blood took fire because of the sun' (Ciudad Real 1600?: fol. 350v)
- (5b) pocni in keban vokol
 'I paid what I deserved for my sins' (Ciudad Real 1600?: fol. 378r)
- (5c) mutni Juan t u men vinicob
 'John was defamed by the people' (Ciudad Real 1600?: fol. 313v)

1.2. VERBAL AFFECTS IN MODERN YUCATEC. As in Colonial Yucatec, there are two kinds of verbal affects in Modern Yucatec, one marked by -b'-al, which is a reflex of Colonial -m-al, and the other by -(á)ankil, which is a reflex of Colonial -ancil.

1.2.1. VERBAL AFFECTS MARKED BY -B'-AL. The affects marked by -b'-al are listed with their imperfective stems in the first two columns of Table 12-3. The perfective stem is formed by adding -n-ah(-ih) to the imperfective stem. The use of the imperfective stem in context is illustrated in (6a-e) and of the perfective stem in (6f-g):

- (6a) ǂ'óǂok u hač b'ašb'al a nòok'
'your clothes have become very grimy' (V. Bricker et al. 1998:27)
- (6b) ǂ'óǂok u ǂ'ukb'al inw óǂoč b'úǂul
'my beans have become thick' (V. Bricker et al. 1998:56)
- (6c) táan u náayb'al u y ič
'he is dozing' (V. Bricker et al. 1998:195)
- (6d) ǂ'óǂok u poǂ'b'al le b'eha?
'this road has become very slippery' (V. Bricker et al. 1998:218)
- (6e) h wàane? ǂ'óǂok u tohb'al
'John, he already became stiff [after death]' (V. Bricker et al. 1998:278)
- (6f) č'alb'alnahih
'it became greasy' (V. Bricker et al. 1998:79)
- (6g) hiiǂ'b'alnah in šikin
'I got a sudden pain in my ear' (V. Bricker et al. 1998:105)

The use of -n-ah in the perfective stem indicates that it is being treated as an antipassive, rather than as a root.

1.2.2. VERBAL AFFECTS MARKED BY -(Á)ANKIL. The -(á)ankil suffix appears only in the imperfective stem, as in the following contextual examples:

- (7a) táan u y iǂláankil a k'íǂik'el
'your blood is oozing' (V. Bricker et al. 1998:10)
- (7b) ǂ'óǂok u káahal u b'òokáankil le hàanlo?
'that food has begun to give off an odor' (V. Bricker et al. 1998:34)
- (7c) t u láakal b'áǂaš t a mèentah tene?
'everything you did to me,

téǂe k u kùupankil t im puksǂik'ala?
it is bottled up there in my heart' (V. Bricker et al. 1998:138)
- (7d) čéen t u máan a waǂ'k'aláankil
'you only wander about' (V. Bricker et al. 1998:297)

The perfective stem behaves like an antipassive, with -n-ah replacing -(á)ankil, as in ǂàalnahih 'she gave birth' (V. Bricker et al. 1998:4).

Table 12-3. Affect verbs and related adjectives in the Hocaba Dictionary (V. Bricker et al. 1998).

Verb	Gloss	Adjective	Gloss
ʔáamb'al	roar (plane), rumble (earth)	—	
ʔayb'al	become obese (dog, horse)	ʔáʔaykil	obese (dog, horse)
ʔišb'al	break out in a rash or goose pimples	ʔíʔiškil	rough [skin with rash or goose pimples; bark of tree]
ʔoɕ'b'al	become wrinkled	ʔóʔoɕ'kil	covered with wrinkles
ʔolb'al	become soft [hands of someone who ceases working]	ʔóʔolkil	soft, tender [leaf, hands of someone who is idle]
—		ʔóʔop'kil	fragile
ʔúumb'al	rock, sway	—	
ʔusb'al	swell	ʔúʔuskil	swollen
b'ahb'al	swell (boil); be crowded (bus, house)	b'ab'ahkil	swollen, inflamed [with pus]; crowded (bus, house)
b'amb'al	become fat, heavy	b'amb'ankil	fat, heavy
b'ašb'al	become hard (earth floor, clothes with grime)	b'ab'aškil	tight, packed (earth floor in house); grimy
b'ayb'al	become straight	b'ab'aykil	straight
b'íʔib'al	become soft (cloth after many washings)	b'íʔib'íʔkil	soft, smooth
b'ilb'al	become clean, rubbed smooth (floor, ground)	b'ib'ilkil	clean, rubbed smooth
b'ohb'al	become stiff; ring hollow	b'ob'ohkil	swollen, flatulent (stomach, like a drum); dry (cough, throat, lungs)
b'uhb'al	sprout profusely (leaves on tree)	b'ub'uhkil	dense, thick (leaves on tree); splittable
ɕahb'al	become well toasted until it is fragile	ɕaɕahkil	well toasted
ɕak'b'al	become sharp	ɕaɕaʔkil	very sharp (knife, scissors)
ɕáak'b'al	palpitate, throb	—	
ɕamb'al	temper (metal), harden, straighten up	ɕanɕankil	hardened, tempered
ɕapb'al	become fuzzy	ɕaɕapkil	fuzzy
ɕikb'al	converse, chat	—	
ɕuɕb'al	scar, obstruct	ɕuɕuɕkil	thick (forest)
ɕ'aɕ'b'al	become muddy	ɕ'aɕ'aʔkil	squishy

Table 12-3. (cont'd) Affect verbs and related adjectives in the Hocaba Dictionary (V. Bricker et al. 1998).

Verb	Gloss	Adjective	Gloss
ǵamb'al	fall thickly (leaves)	ǵanǵankil	dense (leaves), crammed (meat in stew)
ǵiʔb'al	become clean, brilliant (ripe fruit)	ǵiʔǵiʔkil	sparkling clean
ǵipb'al	become slippery	ǵiǵipkil	slippery
ǵopb'al	become muddy	ǵoǵopkil	muddy, marshy
ǵúʔub'al	soften	ǵúʔuǵuʔkil	soft, mushy
ǵuǵb'al	shrivel	—	
ǵukb'al	become thick (boiled beans)	ǵuǵuhkil	creamy (beans)
čaʔb'al	become loose	čáʔačáʔakil	loose
čimb'al	become bowed with fruit (tree)	činčinkil	bowed [from weight of fruit]
čočb'al	dry up, shrivel	čočočkil	dried up, shrivelled
čohb'al	bear many fruit	čočohkil	hanging (fruits)
čoʔb'al	fill up [with many people]	čočoʔkil	crammed
čučb'al	shrivel	čučučkil	shrivelled, tangled
čalb'al	become greasy	čač'alkil	greasy
čayb'al	drip (blood from meat)	čač'aykil	bloody (meat)
čehb'al	stick up (points or tips)	čeč'ehkil	sticking up (points or tips)
čemb'al	weigh a lot	čenč'enkil	heavy
čišb'al	clump, cluster thickly	čič'iškil	thickly clustered (worms, plants)
—		háʔahaʔkil	juicy
halb'al	lubricate	hahalkil	slippery, smooth
hap'b'al	become gritty	hahap'kil	gritty
hep'b'al	become tight	hehep'kil	tightened, cinched
héesb'al	pant	—	
hetb'al	become fragile	hehetkil	easily split, broken
híiǵb'al	stab (pain [once only])	hihiǵkil	extractable; painful (crying)
hičb'al	be tied firmly	hihičkil	porous, grainy
hišb'al	become grainy	hihiškil	bumpy, pebbly
hoǵb'al	disintegrate; become doughlike	hohoǵkil	disintegrated, rotten
hočb'al	become limp	hohočkil	limp
holb'al	become slippery	hoholkil	slippery
hopb'al	take fire	hohopkil	flammable

Table 12-3. (cont'd) Affect verbs and related adjectives in the Hocaba Dictionary (V. Bricker et al. 1998).

Verb	Gloss	Adjective	Gloss
hošb'al	become scaly (skin)	hohoškil	grainy, bumpy; crackling (starched clothes); ringing (hollow stone)
huʔb'al	grow thickly (hair, leaves)	huhuʔkil	very thick (leaves on tree)
hupb'al	become dusty [sinking in sand]	huhupkil	dusty [sinking in sand]
hušb'al	become bumpy, granular	huhuškil	bumpy (ground); granular, grainy; scaly
huyb'al	become powdery	huhuykil	soft, smooth
kalb'al	ache [from something too cold or too sweet]	kakalkil	grainy, granulated; numb
kamb'al	be crowded, become stiff	kankankil	stiff (neck, back)
kelb'al	become grainy, granular	kekelkil	grainy, granular
kešb'al	become grainy [skin after bathing]	kekeškil	grainy
kiʔb'al	become soiled (clothing)	kikiʔkil	dirty, filthy (clothing)
kiɕ'b'al	become grimy	kikiɕkil	grimy
kíilb'al	tremble, shake, quake	—	
—		kokoɕkil	frayed
kohb'al	become thick, felt	kokohkil	densely woven
košb'al	become pimply, warty	kokoškil	pimply, warty
kotb'al	become crowded	kokotkil	crowded
—		kukučkil	sticky
kulb'al	bathe in mud	kukulkil	smear
kupb'al	become stuffy	kukupkil	sultry, becalmed
kutb'al	become fat	kukutkil	fat, bulbous
k'ak'b'al	dry up, shrivel	k'ak'aʔkil	desiccated
k'isb'al	swell (breasts)	k'ik'iskil	swollen (breasts full of milk)
k'olb'al	become dirty	k'ok'olkil	dirty, grimy
k'osb'al	become dry	k'ok'oskil	dry (meal without grease)
k'ušb'al	become gritty	k'uk'uškil	gritty
leɕ'b'al	glisten, shine	leleɕkil	glistening, shining
lééɕ'b'al	flash, sparkle, gleam	—	
lemb'al	become firm	lelenkil	firm, heavy
léemb'al	flash, sparkle, gleam	—	
lot'b'al	shrivel up	lolot'kil	shrivelled, wrinkled

Table 12-3. (cont'd) Affect verbs and related adjectives in the Hocaba Dictionary (V. Bricker et al. 1998).

Verb	Gloss	Adjective	Gloss
mayb'al	become fine	mamaykil	fine, smooth, powdery
mučb'al	shrivel, frizz	mumučkil	shrivelled, frizzy
nat'b'al	become cramped, crowded	nanat'kil	cramped, crowded
náayb'al	doze	—	
ničb'al	become angry; feel itchy	niničkil	itchy
—		nonohkil	hanging around
not'b'al	shrivel up, waste away	nonot'kil	shrivelled
nuk'b'al	encyst	nunu?kil	encysted
nulb'al	form lump	nunulkil	lumpy [changes position]
pa?b'al	become drenched	papa?kil	drenched
pačb'al	swoon	papačkil	weak [from drinking]
pečb'al	stick (someone who won't leave)	pepečkil	stuck
pik'b'al	become loose (tooth)	pipi?kil	loose (post, tooth)
poč'b'al	become slippery	popočkil	very slippery
p'očb'al	swarm; break out in rash	p'op'očkil	spotted, blotchy
p'olb'al	swell; develop, grow	p'op'olkil	developed, grown, well groomed
p'ošb'al	break out in rash	p'op'oškil	blotchy, spotted
sač'b'al	become ill [from fever]	sasačkil	elastic, weak, shaky
sí?ib'al	become dry [in sun or near fire]	sí?isi?ikil	dry [in sun or near fire]
somb'al	become overgrown	sonsonkil	thick, covered (with weeds or vines)
sotb'al	become swollen [filled with air]	sosotkil	swollen [with air]; hollow (sound)
sulb'al	become drenched	susulkil	drenched
še?b'al	become dirty	šeše?kil	dirty
šíimb'al	walk	—	
tak'b'al	become sticky	tata?kil	sticky
—		tetep'kil	easily burst
timb'al	swell up (belly after overeating)	tintinkil	taut, tight
točb'al	stiffen [with dirt, starch]; grow hard, tough	totočkil	stiff, hard
tóoč'b'al	flame, rise up (waves)	totočkil	very drunk
tohb'al	become taut, tight, stiff	totohkil	taut, tight
tuk'b'al	bulge, swell	tutu?kil	bulging

Table 12-3. (cont'd) Affect verbs and related adjectives in the Hocaba Dictionary (V. Bricker et al. 1998).

Verb	Gloss	Adjective	Gloss
t'ayb'al	jell, coagulate	t'at'aykil	gelatinous
t'iʔb'al	become inflamed, distended (belly)	t'iʔt'iʔkil	distended
t'imb'al	become taut	t'int'inkil	very tight (guitar strings)
t'očb'al	harden (glue)	t'ot'očkil	hardened
—		t'ot'ohkil	brittle
t'oyb'al	become gelatinous; make well	t'ot'oykil	gooey; well done
t'učb'al	develop well	t'ut'učkil	well-built, shapely (woman)
wamb'al	become stuffed, blown up	wawankil	stuffed, blown up
wehb'al	become loose (grains on corncob)	wewehkil	loose (grains on corncob)
yač'b'al	become squishy (mud); ooze (blister)	yayač'kil	squishy (mud), oozy (blister)
yalb'al	become greasy	yayalkil	greasy
yéʔeb'al	appear suddenly and disappear (lightning)	—	
yúʔub'al	become soft	yuʔyuʔkil	soft
yúuʔb'al	undulate (crowd)	—	
yúukb'al	shake, be agitated	—	
yulb'al	form cyst	yuyulkil	lumpy (cyst under skin)

2. ADJECTIVAL AFFECTS

2.1. ADJECTIVAL AFFECTS IN COLONIAL YUCATEC. Reduplication is a characteristic of the principal adjectival affects, many of which are semantically related to the verbal affects described in **1.1.** above. One of them suffixed -ci to the reduplicated stem, and the other suffixed -nac to the same stem. A formal treatment of reduplicated adjectives is provided in **1.** Of Chapter 13.

2.1.1. ADJECTIVAL AFFECTS MARKED BY -CI. The adjectival affects marked by -ci are listed in the last two columns in Table 12-1, next to their corresponding verbal affects, if any. Two patterns of reduplication are exemplified in this Table: partial and full. In partial reduplication, the first consonant and vowel of the root are repeated, yielding CV-CVC-ci, as in:

- | | | |
|-----|----------|---|
| (8) | bibilci | 'trampled, dragged along' |
| | cocotzci | 'brittle, fragile, easily burst (cord, thread)' |
| | cucucci | 'fainting, swooning' |
| | çaçahci | 'dry, parched by sun (leaves of tree)' |
| | heheppci | 'creaking, squeaking' |
| | lalabci | 'rotten (plants, roots)' |

mumukci	'patient, long suffering'
nonolci	'hardened (clay, bread)'
popotci	'smooth, slippery'
xixichci	'full, stuffed, swollen'

In full reduplication, the entire root is repeated, yielding CVC-CVC-ci:

(9)	çinçinci	'extended, stretched'
	tzaytzayci	'very sticky'
	holholci	'slippery, smooth'
	hoxhoxci	'rough'
	lácilacci	'coagulating, curdling'
	lemlemci	'strong, robust, tied tightly'
	lotzlotzci	'coagulated, curdled'
	mazmazci	'fraying, wearing out (cord)'
	muymuyci	'pulverized, sifted'
	poxpoxci	'stuffed'
	ppuyppuyci	'abraded, crumbled'
	tepteppci	'swollen, taut'
	ukukci	'humid'

Contextual examples of partial and full reduplication in adjectival affects marked by -ci appear in (10a–g):

- (10a) babahci v pucçikal ti keban
'he is obdurate in sins' (Ciudad Real 1600?: fol. 38v)
- (10b) chechehci vinicob ti y otoch ku
'people are tightly pressed together in church' (Ciudad Real 1600?: fol. 54r)
- (10c) hahacci v pach che ma vchac in naacali
'the bark of the tree is very slippery; I cannot climb it' (Ciudad Real 1600?: fol. 172r)
- (10d) lemlemci v kaxal na
'the bindings of the thatched house are strong' (Ciudad Real 1600?: fol. 265v)
- (10e) pipizci v malel kin toon
'time passes in vain for us' (Ciudad Real 1600?: fol. 376v)
- (10f) ppuuyppuyci ticin vah
'the dry bread is crumbled' (Ciudad Real 1600?: fol. 394r)
- (10g) xuxulci a buthicex ixim ti xuxac
'fill the basket of corn to the utmost' (Ciudad Real 1600?: fol. 465r)

2.1.2. ADJECTIVAL AFFECTS MARKED BY -NAC. Table 12-4 shows that three kinds of stems co-occurred with -nac in Colonial Yucatec. Two of them involved reduplication, one partial and the other full. The third suffix -Vc to the CVC root (V echoed the vowel in the root), followed by -nac.

Table 12-4. Colonial affect adjectives marked by -nac in the Calepino de Motul (Ciudad Real 1600?).

Adjective	Gloss
ačhacnac	juicy, succulent, full of sap; sticky (boiled honey), greasy (chicken fat); soft
ayacnac	juicy, greasy, sticky; var. <u>aynac</u>
akacnac	humid, greasy
alacnac	slow, deliberate
aanac	noisy, thunderous (thunder, earthquake)
babacnac	wide, open; strong
baabcanac	wide
babachnac	lean, thin, slender, weak
bakacnac	encircling, enclosing
balacnac	hidden
babalnac	wide
bebechnac	shaking (tall objects)
bibiknac	wriggling
bibixnac	late
bococnac	odiferous
bocolnac	smelly, odiferous
bobohnac	ringing hollow
booyocnac	walking very slowly
boboknac	shaking violently (water in vessel)
bobokac	shaking violently (water in vessel)
bubucnac	move back and forth
bubuchnac	losing time while walking, wandering alone sadly
buyucnac	odiferous, smelly
buucnac	smoking but not burning
calacnac	aching; penetrating, spreading (poison, wine, pain in body); var. <u>canacnac</u>
canacnac	aching; penetrating, spreading (poison, wine, pain in body); var. <u>calacnac</u>
cancnac	very swollen, tightened
ciicnac	intoxicated
cicipnac	slippery
coconac	lewd, dishonest, dishonorable
cochocnac	wide
cocoynac	wrong, unequal, uneven, tilted
cocolnac	loose
cocopnac	arched, bent, folded
copocnac	twisting, coiling, forming hoop
cucucnac	very ripe (fruit)
cutzucnac	splintered (wood), unravelled (edge of cloth)
cuchucnac	loaded; guilty
cucuynac	hardened (fruit); trembling
culucnac	very loud (sound of thunder, drum)
cululnac	very loud (sound of thunder, drum)

Table 12-4. (cont'd) Colonial affect adjectives marked by -nac in the Calepino de Motul.

Adjective	Gloss
çaçacnac	dry, parched by the sun (leaves of tree)
caçanac	stretching, extending
çaçalnac	drying out (clothes, earth)
çamacnac	sweet smelling
çatacnac	sharp (pain of bedbug bite)
çauacnac	tangled, topsy-turvy
çiçicnac	very parched (plant) {çiçicnac misspelled}
cikicnac	disheveled, disarranged (hair, thatch covering house) {cikicnac misspelled}
çoçotnac	swollen, full of air (wine bag), inflated, stuffed (stomach full of food or gas)
çucucnac	thick, dense {çucucnac misspelled}
çucucnac	often, frequently {çucucnac misspelled}
cucucnac	thrown, stretched, spread out, extended (long objects); {cucucnac misspelled}
cuzulnac	very ripe (fruit) {cuzulnac misspelled}
tzaktzaknac	struck one after another
tzihinac	reeking of urine
tzolocnac	placed in order
çaacnac	very humid and wet
çibnac	smooth, polished, burnished
çococnac	feeling intensely
çucunac	softening, ripening
chalcnac	clear
chichicnac	half mad, insane, crazy; half silly, foolish, stupid; astonished that he does not do what he was told nor fetches what he was requested to bring
chichicnac	shaking violently
chijcnac	melancholic, frowning, annoyed
chichnac	melancholic, sad, gloomy, peevish, vexed {chichnac misspelled ?}
cholocnac	loosening
choonac	very humid
chulucnac	dripping, leaking one after another
çhenecnac	silent, quiet, calm, peaceful, suspended, absent, vacant
çhetecnac	twisted
çhoocnac	rotten, decayed, full of pus
çhulucnac	very wet, humid
eecnac	quietly, calmly, peacefully
eelnac	burning
epecnac	about to happen
hacaacnac	slipping, sliding (snake, rope)
haazacnac	suffering
haaznac	suffering
hahanac	shiny, glossy {hahanac misspelled ?}
hehecnac	that which squeaks, creaks, crackles, grates

Table 12-4. (cont'd) Colonial affect adjectives marked by -nac in the Calepino de Motul.

Adjective	Gloss
henecnac	sprawling, loose (load)
het̃hecnac	fissured, cracked, cleft, creviced, cut
hobacnac	destroyed, disturbed, undone, tangled
homocnac	empty, cleared
hulucnac	swift, straight like an arrow
humucnac	noisy, loud
hutucnac	falling, fading
hatzacnac	dividing, separating
holocnac	pierced or bored through, from side to side
kaacnac	abundant, copious, prosperous
kakamnac	lifeless, floating; var. <u>kakacnac</u> , <u>kakanac</u>
kanacnac	ripening (fruit, corn)
kaapacnac	pinching, contracting
kaatacnac	wandering back and forth
kaaxilnac	defecating
kechbanac	twisting, deviating
kinicnac	abundant, timely
kukulnac	hardened (fruit)
labacnac	spoiling, rotting, growing old; spoiled, rotten, aged
lalacnac	detaching, pulling out
lalacnac	stinging, smarting, burning (mustard)
lamacnac	large, wide, spacious; distant; var. <u>lemecnac</u>
lelemnac	resplendant, shining, glittering, bright, flashing
lemecnac	subdued, calm, quiet
lemecnac	large, wide, spacious; distant; var. <u>lamacnac</u>
lilicnac	on the verge of leaving
lolocnac	brought to a boil
lolopnac	bent, folded, curved
lopocnac	bent, folded, arched
lulucnac	tender, soft, delicate; feeble, weak, frail; flimsy
luthucnac	gradually, slowly
mamaknac	soft, tender
manac	restless, uneasy; distant, far, isolated
manacnac	distant, far from view; var. <u>lamacnac</u>
mizicnac	sweeping back and forth (long dress, tail of animal)
mimiznac	dragging
molocnac	piling up
mulacnac	piled up { <u>mulucnac</u> misspelled ?}
mumucnac	hidden, covered, wrapped
mumuznac	itchy
mumuknac	patient, long-suffering

Table 12-4. (cont'd) Colonial affect adjectives marked by -nac in the Calepino de Motul.

Adjective	Gloss
mumulnac	piled up, very close together (people, livestock)
nacacnac	bored, bothered
nacacnac	unsteady (child taking first step)
nakacnac	smarting, chafing
namacnac	distant, very far; tall, sovereign
nanacnac	unsteady (child, drunk, sick person)
nanauac	falling (drunk, child)
nečhecnac	slowly, little by little
nibnibnac	fervent
ninibnac	fervent
nicnac	blooming, blossoming
nothocnac	worn out, dried out (land); weak, feeble, frail (person)
oocnac	wrinkling here and there
oochnac	bent, bowed, stooped, crouched
ochocnac	bent, bowed, stooped, crouched
oomnac	boiling
ootnac	throbbing
papalnac	trembling from fright or fear
pepetnac	going in circles
potocnac	pierced, perforated, bored
ppalacnac	untwisting, untangling
ppitcnac	excessive
ppotocnac	woolly, fleecy, fuzzy, curly
ppuppucnac	stooped, crouched
ppuhucnac	rebellious, upset
ppuuyucnac	crumbled
ppuppucnac	spongy, soft like unspun cotton
ppuxucnac	bent, stooped, crouched
ppuxulac	bent, stooped, crouched
tapacnac	fragrant, penetrating
tibicnac	afraid, frightened
titicnac	noisy
tilicnac	raised (dust, earth); noisy (thunder, stomach, drums)
titipnac	throbbing, pulsating (pulse); move back and forth (boat in water)
tuucnac	stinking, fetid, spoiled, tainted
tutulnac	overflowing
thonocnac	humble, meek, weak, faint
uáánac	going and stopping from time to time
uececnac	spilled, scattered, shed
uijhnac	hungry
ukucnac	drinking, soaking, humid, leaky (vessel)

Table 12-4. (cont'd) Colonial affect adjectives marked by -nac in the Calepino de Motul.

Adjective	Gloss
xabacnac	scattered, spread, spilled, topsy-turvy
xacacnac	on all fours
xanacnac	slow
xeuecnac	spilling, spreading
xibicnac	separated, spread, dissolved [in water]; dissipated (smoke, fog)
xibicnac	trembling, shaking, shuddering; fearful
xicicnac	tarnishing, cracking, splitting, breaking apart
xitnac	opening
xithicnac	stretched
xohocnac	rotten (beans, corn, seeds)
xoyocnac	surrounding, encircling, turning
yuyunac	softening, ripening (bubo, abscess)
yuyucnac	very tall (tree, man)

The reduplicated -nac stems were structurally identical to the ones suffixed by -ci: CV-CVC-nac and CVC-CVC-nac. A number of the CV-CVC-nac stems share meanings with the corresponding CV-CVC-ci stems, of which the following are representative:

(11)	<u>CV-CVC-ci</u>	<u>CV-CVC-nac</u>	<u>Gloss</u>
	cocolci	cocolnac	loose
	cocopci	cocopnac	arched, bent, folded
	cucuyci	cucuynac	hardened (fruit)
	çaçalci	çaçalnac	drying out after being wet
	çiçici	çiçicnac	very parched (plant)
	mamakci	mamaknac	soft, tender
	mumukci	mumuknac	patient, long-suffering
	oocci	oocnac	wrinkling
	titici	titicnac	noisy

In addition, a number of the CVC-Vc-nac stems that are based on the same roots as the CV-CVC-ci and CVC-CVC-ci stems have similar or identical meanings:¹

(12)	<u>CV(C)-CVC-ci</u>	<u>CVC-Vc-nac</u>
	aayci	ayacnac
	'juicy, greasy, sticky'	'juicy, greasy, sticky'
	aakci	akacnac
	'humid, greasy'	'humid, greasy'
	cucutzci	cutzucnac
	'unravelling at top or bottom (cloth)'	'splintered (wood), unravelling (edge of cloth)'

cuculci 'noisy, clattering'	culucnac 'very loud (sound of thunder, drum)'
hahacci 'slippery, slick'	hacaacnac 'slipping, sliding (snake, rope)'
lalabci 'rotten (plants, roots)'	labacnac 'spoiling, rotting, growing old; spoiled, rotten, aged'
luluci 'soft, soaked'	lulucnac 'tender, soft, delicate; feeble, weak, frail, flimsy'
nonothci 'thin, feeble, frail; poor, impoverished, dried out (land)'	nothocnac 'worn out, dried out (land); weak, feeble, frail (person)'
ppuuyppuyci 'abraded, crumbled'	ppuuyucnac 'crumbled'

Some examples of CV-CVC-nac adjectival affects appear in context in (13a–f) below:

- (13a) bebechnac che t u me[n] yk
'the tree is shaking because of the wind' (Ciudad Real 1600?: fol. 49v)
- (13b) cocoynac a cuch ixim
'your load of corn is unbalanced' (Ciudad Real 1600?: fol. 77r)
- (13c) cuculnac t u ximbal t u hunal
'noisily he walks alone' (Tizimin n.d.: fol. 14r)
- (13d) eelnac kak t in nal
'the fire is burning in my cornfield' (Ciudad Real 1600?: fol. 164r)
- (13e) mumuznac in pach
'my back is itchy' (Ciudad Real 1600?: fol. 313r)
- (13f) oochnac v talel Ju.^o
'John is becoming stooped (with age)' (Ciudad Real 1600?: fol. 345v)

They can be compared with the CVC-Vc-nac adjectival affects that are contextualized in (14a–g) below:

- (14a) buyucnac v boc
'it is very smelly' (Ciudad Real 1600?: fol. 57r)
- (14b) calacnac in cucutil t u men vjhh
'my stomach is aching from hunger' (Ciudad Real 1600?: fol. 63v)

- (14c) culucnac v pec caan
'the sound of the sky is very loud (thunder)' (Ciudad Real 1600?: fol. 89r)
- (14d) çamacnac v boc
'it smells very sweet' (Ciudad Real 1600?: fol. 97v)
- (14e) hulucnac v benel ahau can
'the rattlesnake goes swiftly' (Ciudad Real 1600?: fol. 195r)
- (14f) lemecnac v nak caan
'the sky is fair' (Ciudad Real 1600?: fol. 205v)
- (14g) neçhecnac in benel in xoy teex
'I go along slowly to see you-all' (Ciudad Real 1600?: fol. 325v)

2.2. ADJECTIVAL AFFECTS IN MODERN YUCATEC. Only one of the three basic adjectival affect stems in Colonial Yucatec, the one ending in -ci, survived into Modern Yucatec. The ones ending in -nac are no longer present in Modern Yucatec. However, they are still evident today in Itsaj and Mopan, as is -ci, although in the latter language, the CV-CVC-nac form is now rare, and the CVC-Vc-nac stem has become CVC-V-nac (Hofling 2000:152–153, 172; 2011:22–23).

In the course of the transition from Colonial to Modern Yucatec, -ci became -cil (phonetic [-kil]), a change that did not take place in Itsaj or Mopan (Hofling 2000:152–153; 2011:22). A complete list of the -kil affects elicited for the Hocaba dialect of Modern Yucatec can be found in the third and fourth columns of Table 12-3.

Apart from the shift from -ci_ (phonetic [-kih]) to -cil (phonetic [-kil]), the principal difference between such affects in Colonial and Modern Yucatec involves the reduction in the number and kind of CVC-CVC stems. Only nasal-final and glottal-stop-final roots appear in CVC-CVC-kil stems in Modern Yucatec (see [15] and [16] below), whereas the CVC-CVC-ci stems were not limited to those roots in Colonial Yucatec (see [9] above).

(15)	<u>CVN-CVN-kil</u>	<u>Gloss</u>
	b'anb'an <u>kil</u>	fat, heavy
	çançan <u>kil</u>	hardened, tempered
	ç'anç'an <u>kil</u>	dense (leaves), crammed (meat in stew)
	činčin <u>kil</u>	bowed [from weight of fruit]
	č'enč'en <u>kil</u>	heavy
	kankan <u>kil</u>	stiff (neck, back)
	sonson <u>kil</u>	thick, covered [with weeds or vines]
	tintin <u>kil</u>	taut, tight
	t'int'in <u>kil</u>	very tight (guitar strings)
(16)	<u>CV?(V)-CV?(V)-kil</u>	<u>Gloss</u>
	b'i?ib'i?i <u>kil</u>	soft, smooth
	ç'i?iç'i?i <u>kil</u>	sparkling clean
	ç'ú?uç'ú?i <u>kil</u>	soft, mushy
	čá?ačá?a <u>kil</u>	loose

háʔahaʔkil	juicy
sʔisʔikil	dry [in sun or near fire]
tʔtʔikil	distended
yuʔyuʔkil	soft

The use of -kil affects in context is illustrated in (17a–f) below:

- (17a) t in hàantah hum p'éel š b'úʔuli k'éek'en b'ehláʔe?
'I ate a serving of pork and beans today

ʔanʔankil y éetel u kiʔil
that was crammed with meat' (V. Bricker et al. 1998:48)
- (17b) le h kàaš t a píiʔtah b'ehláaʔ ʔenʔenkil
'that rooster you baked today is heavy' (V. Bricker et al. 1998:82)
- (17c) hihiʔkil inw ič
'my eyes are gritty' (V. Bricker et al. 1998:105)
- (17d) t inw ilah h pèedro hohočʔkil kaláʔanil
'I saw Peter limp from drinking' (V. Bricker et al. 1998:108)
- (17e) nonohkileč b'eyeč pèek'eʔ
'you are hanging around like a dog' (V. Bricker et al. 1998:199)
- (17f) pipiʔkil in koh
'my tooth is loose' (V. Bricker et al. 1998:216)

3. ADJECTIVAL COMPOUNDS DERIVED FROM BASIC COLOR TERMS

The suffix -en in Colonial Yucatec (-éʔen in Modern Yucatec) derives adjectives from a variety of roots and compound expressions, and it sometimes serves as a variant of the participial suffix, -an (phonetic [-áʔan]). When combined with each of the five basic color terms and a limited number of roots from a variety of form classes, it produces evocative expressions very much like the adjectival affects described in **2.1.-2.2.** above (see V. Bricker [1999] for a comprehensive treatment of such compounds and their relationship to affects in Modern Yucatec and Tzotzil).

3.1. COLOR COMPOUNDS IN COLONIAL YUCATEC. Colonial Yucatec had only five basic color terms: chac 'red,' ek 'black,' kan 'yellow,' çac or zac 'white,' and yax 'green.' Each of them could refer to a range of hues. Thus, although the primary meaning of chac is 'red,' the term can also be used in describing objects that are pink, purple, orange, and rust colored. Similarly, although kan is usually translated as 'yellow,' its semantic range extends to orange, brown, and even the shade of red that characterizes the richest soil for agriculture (kan cab). And, although yax was glossed as 'green' in the Calepino de Motul, it also referred to blue in some compounds in other early Colonial dictionaries (see Table 12-5), as it does in other Mayan languages.

Table 12-5. Compound stems based on the basic color terms in Early Colonial dictionaries.

Root	ek 'black'	chac 'red'	kan 'yellow'	çac 'white'	yax 'green'	Gloss
ba '?'	+	—	—	—	—	covered with black buboes
bac 'bone'	—	—	—	+	—	convalescent
ban 'very, much'	—	+	—	+	—	intense
bay '?'	—	—	—	+	—	convalescent
biç '?'	+	—	—	—	—	dark, murky, gloomy
bith '?'	+	—	—	—	—	black, dirty, soiled
box 'dark'	—	+	—	—	—	dark red
buo 'smoke'	+	—	—	—	—	smoky black
buy 'vapor'	—	—	—	+	—	cloudy, light blue (eyes)
cab '?'	—	—	—	—	+	blue, turquoise (sea, sky)
cim 'die'	—	—	—	+	—	faint, pallid
cob '?'	—	—	+	—	—	whitish yellow
coh 'lion [sic], puma'	—	—	+	—	—	tawny
cul 'sit down, reside'	—	—	—	+	—	distant, dim
culul 'complete'	+	—	—	—	—	very dark
cum 'swell'	—	—	—	—	+	bruised
cun '?'	—	—	—	—	+	bruised
çam 'rather, slightly'	+	—	+	—	—	dusky, at twilight
tzah '?'	—	—	+	—	—	jaundiced
tzay 'fry'	+	—	—	—	—	jet black, matted black
tzoh '?'	—	+	+	—	—	blond, smoky
oil 'peel, skin, husk'	—	—	+	—	—	ripe
ouy 'tough?'	+	—	—	—	—	jet black
cha '?'	—	—	+	—	—	blond
chab 'dandruff, scurf'	—	—	+	—	—	yellowish
chal 'clear'	—	—	—	+	—	very white, transparent
cheb 'pen point, chisel'	—	+	—	—	—	bloody (eyes)
chic 'light'	—	—	—	+	—	white (hair)
haa 'water'	—	—	+	—	—	pale, colorless, faded
haab 'year; age; period of years'	—	—	+	—	—	golden
hao 'whip, discipline'	—	—	—	+	—	gleaming, brilliant
hol 'excess, leftover'	+	+	—	—	—	very black, red-hot
hom 'clear level'	—	—	—	+	—	clean, swept, clear
hop 'light fire'	—	+	—	+	—	lustrous white, red
hul '?'	—	—	—	—	+	sky blue
huy '?'	—	—	+	—	—	blond
io '?'	+	—	—	—	—	purple
kal 'transparent'	—	—	—	+	—	clear, transparent, luminous
kol 'transparent, clear'	—	—	—	+	+	clear, cloudless
lem 'flash, sparkle, gleam'	—	—	—	+	—	lustrous white

Table 12-5. (cont'd) Compound stems based on the basic color terms in Early Colonial dictionaries.

Root	ek 'black'	chac 'red'	kan 'yellow'	çac 'white'	yax 'green'	Gloss
loh '?'	—	—	+	—	—	smoky
mal '?'	—	—	—	+	—	colorless, bloodless (face)
mech '?'	—	—	+	—	—	colorless
na '?'	+	—	—	+	—	at dusk, twilight; white
nic 'flower, rose'	—	+	—	—	—	pink, rose-colored
och '?'	+	—	—	—	—	dark
ol '?'	+	—	—	—	—	very black
opp 'brittle'	—	—	—	+	—	brittle white
paç '?'	—	—	—	+	—	at sunset
pach 'color'	—	—	+	—	—	pale (from fear or illness)
pah 'stale'	—	—	—	+	—	whitish
pay 'part, piece'	—	—	—	+	—	speckled with white
pak 'wall'	—	—	—	+	—	white (expanse, wall)
(ah) pich 'Negro'	+	—	—	—	—	black (ink)
pik 'clear, lighten, brighten'	—	—	—	+	—	white, whitish
pil '?'	—	—	+	—	—	jaundiced
poc 'wash'	—	—	—	+	—	whitish
poç 'pale, colorless'	+	—	+	+	—	ash-colored, pale
puk 'dilute, dissolve, mix'	—	—	—	—	+	bruised
ppoch 'overloaded'	—	+	—	—	—	very red
ppox 'rash'	—	+	—	—	—	red, flushed
ppul 'swollen'	+	—	—	—	—	very black
ppum '?'	—	—	+	—	—	smoky
topp 'expanse'	—	—	+	—	+	yellow area; blue, turquoise
tñoh '?'	—	—	+	—	—	blond
uol 'all'	—	—	—	+	—	light blue (eyes)
xic 'calk'	—	+	—	—	—	blushing red
yoc '?'	—	—	+	—	—	ripe
yub 'cloth'	+	—	—	—	—	between white and red

NOTE: A plus sign (+) indicates that the compound is attested, whereas a minus sign (—) means that it is unattested.

For expressing the other common dimensions of contrast—brightness and saturation—Colonial Yucatec relied on the formation of compounds composed of the color term and lexemes recruited from other form classes: nouns, transitive verbs, intransitive verbs, particles, and other adjectives. For example, the particle root çam 'rather, slightly' was combined with ek 'black' to produce the compound expression, ek=çamen 'dusky,' as in the following sentences in the Calepino de Motul:

- (18a) ek=çamen y ocol kin ca luken cumkal
 'it was dusky at sunset when I left Conkal' (Ciudad Real 1600?: fol. 163r)

- (18b) ek=çamen u tal y ahal=cab ca luken
 'it was dusky as dawn was coming when I left' (Ciudad Real 1600?: fol. 163r)

In both examples, ek=çamen is referring to twilight, when the sky is only slightly black. At the opposite end of the saturation continuum are compounds that refer to dark colors, for example, ek=ppulen 'very black' (< ppul 'swollen') and chac=boxen 'dark red' (< box 'dark'). And the dull end of the brightness continuum is represented by ek=buçen 'smoky black' (< buç 'smoke') and the bright end by çac=haçen 'gleaming, brilliant white' (< haç to whip, discipline; clear bush') in the *Calepino de Motul* (Table 12-5).

However, other such compounds refer to characteristics of colors that have nothing to do with relative saturation or brightness, and it is in those semantic domains that they resemble most closely the adjectival affects described in **2.1.-2.2.** above (see Table 12-5). Compounds like çac=pacen 'white (expanse, wall)' (< pak 'wall?') and çac=payen 'speckled with white' (< pay 'part, piece') contrast a white that is evenly spread over a flat surface with one that appears here and there, as in hair or a beard. Other compounds like kan=haben 'golden [i.e., aged]' (< haab 'year, age; period of years') and çac=hopen 'lustrous white (silver)' (< hop 'light fire') refer to the luster imparted by ageing or burnishing. They contrast with chac=yulen 'abraded red' and çac=yulen 'abraded white' (< yul 'to burnish, polish'), as in a remedy for throat abscesses on page 181 of the *Book of Chilam Balam of Kaua*:

- (19) lay çon koch kake t u cal uinic tac y ulel
 'as for this croup, it is in a person's throat until it appears

sac=yulen va ix chac=yulen
whitish or reddish' (Kaua n.d.:II, 4R)

The use of the compounds, chac=yulen and çac=yulen, instead of the simple terms for red (chac) and white (çac), emphasizes the raw appearance of the inflamed throat and therefore makes it more vivid. In addition, a pun may have been intended here, for yul can mean 'larynx, trachea,' as well as 'to burnish, polish.' This is a clear case of evocative language of the kind characteristic of affects.

Other evocative examples of color compounds in the *Books of Chilam Balam* include:

- (20a) mehe ne ca a tales ten av ix mehen ynv ilab
 'son, you will bring me your daughter for me to see;

lay hach çac=haçen u uiche hach cichpame
 this one whose face is so gleaming white, she is very beautiful' (Gordon 1913:40)

- (20b) zac=oppen u pach u cheel
 'brittle white is the bark of the tree' (Ixil n.d.: fol. 17v, line 22)

- (20c) zac=pozen u lee
 'whitish is its leaf' (Ixil n.d.: fol. 17v, line 23)

- (20d) c u tñan lume hohochil kan=pikeen
 'he says: as for the Earth, it is empty and translucent yellow' (Chan Kan n.d.: 27, line 8)

- (20e) hele en 19 de abril de 1629 años vli u yanal sak
 'today on the nineteenth of April of 1629 years, the other locusts arrived;

Table 12-6. Compound stems based on basic color terms in Books of Chilam Balam and Ritual of Bacabs.

Root	ek 'black'	chac 'red'	kan 'yellow'	çac 'white'	yax 'green'	Gloss
ɔoy 'dull'	—	—	—	—	+	dull green
chal 'clear'	—	—	—	+	—	very white, transparent
hol 'clear away'	—	+	—	—	—	red hot
hom 'clear level'	—	—	—	+	—	clean, swept, clear
lah 'all'	—	—	—	+	—	uniformly white
muc 'bury, hide'	—	—	—	+	—	whitewashed
nic 'flower, rose'	—	+	—	—	—	pink, rose-colored
opp 'brittle'	—	—	—	+	—	brittle white (bark)
pik 'clear, lighten, brighten'	—	—	+	—	—	translucent yellow
pil '?'	—	—	—	+	—	pale
poç 'pale, colorless'	—	—	—	+	—	whitish
ppul 'whiplash, stroke (of bell)'	+	+	+	—	—	acquired black, red, yellow
tan 'wide'	—	—	+	—	—	orange-colored (sun, moon)
topp 'intense'	—	+	—	+	—	intense red, white
yapp 'much, many'	—	+	—	—	—	many red fruits
yul 'burnish, polish'	—	+	—	+	—	abraded red, white

NOTE: A plus sign (+) indicates that the compound is attested, whereas a minus sign (—) means that it is unattested.

chac=nicen u pachob

pink is their color' (Tizimin n.d.: fol. 21r)

- (20f) ox chac=nicen chac xulab
'a rose-colored cluster of large ants' (Gordon 1913:91)

The full set of lexemes that co-occur with color terms in these literary works are listed in the first column of Table 12-6.

An inspection of Tables 12-5 and 12-6 reveals that, in most cases, only one of the five basic color terms appears with each lexeme. I suspect that the sparseness of the matrix in Table 12-5 is an artifact of an elicitation process that did not recognize the significance of such constructions in compiling the *Calepino de Motul* and other Colonial dictionaries. The gaps in Table 12-6 are related to the genres represented by the Books of Chilam Balam and the Ritual of the Bacabs. There are no examples of color compounds in my database of notarial documents, for which evocative language was apparently not appropriate.

3.2. COLOR COMPOUNDS IN MODERN YUCATEC. Although less numerous, the data on color compounds in the Hocaba dialect of Modern Yucatec are more coherent because they were elicited systematically, once Eleuterio Po'ot Yah realized that they had something in common. As mentioned in **3.1.** above, this was not true of the compilation of the *Calepino de Motul* and other Colonial dictionaries, where no effort seems to have been made to test each of the non-color lexemes with each color term. It is for this reason that only

Table 12-7. Compound stems based on the basic color terms in the Hocaba Dialect of Modern Yucatec.

Root	ʔéek' 'black'	čak 'red'	k'áan 'yellow'	sak 'white'	yáʔaš 'green'	Gloss
ʔol 'soft, tender'	+	+	+	+	+	soft, tender
b'an 'fell, shake down'	—	—	+	+	—	abundant
čan 'harden, temper'	+	—	+	—	—	shiny (like metal)
č'áʔay 'bloody'	+	+	+	+	+	watery
č'it 'bamboo'	—	—	—	—	+	light
čuy 'hang, suspend'	—	—	+	—	+	premature
haʔ 'hit, whip, beat'	+	+	+	+	+	glossy, gleaming, brilliant
hep' 'tighten, squeeze, cinch'	+	+	+	—	+	deep
hoʔ '?'	+	—	—	—	—	dark
kum 'swell'	+	+	—	—	+	puffy
k'al 'close, cover, imprison, lock'	—	—	—	—	+	green (eyes)
nay 'dream'	+	—	—	—	—	dusky
pak 'wall'	—	+	+	+	+	expanse
píik 'clear, lighten, brighten'	+	+	+	+	+	translucent
pil '?'	+	+	+	+	+	light, pale, dilute
pos 'pale, colorless'	+	+	+	+	+	pale
puk 'dilute, dissolve, mix'	+	+	+	+	+	faded
p'oš 'break out in rash'	+	+	+	+	+	prickly
p'uč 'beat, flail, thresh'	—	—	+	—	—	yellowed (from smoke)
sam 'rather, slightly'	+	—	—	—	—	slightly
til '?'	+	+	+	—	+	dull
t'ub' 'submerge'	—	+	+	—	+	eye color
yaʔp 'much, many'	—	+	+	+	—	many
yúʔul 'blunt'	+	+	+	+	—	abraded

NOTE: Stems shared with Colonial Yucatec are bolded.

seven of the sixty-nine lexemes appear with more than one color term in the Colonial dictionaries (Table 12-5), whereas more than half of the non-color lexemes in Table 12-6 co-occur with three or more color terms.

Twelve of the twenty-four color compounds in Table 12-7 are shared with the Colonial sources, indicating significant continuity in this semantic tradition. That there are many fewer color compounds in the Hocaba dialect of Modern Yucatec than in the Colonial sources may reflect the difference between a dictionary of the dialect spoken in a single town and dictionaries whose entries came from more than one town. This is suggested by the presence of more than one color compound for "jaundiced" (both kan=tzehen and kan=pilen) in Colonial Yucatec, only the second of which is attested in Modern Yucatec (compare Tables 12-5 with 12-7). Furthermore, the terms that are not bolded in Table 12-7 suggest that Hocaba was unlikely to have been one of the towns whose lexicon was incorporated in the Colonial dictionaries.

Some examples of compounds based on each of the five colors are shown in context in (21a–i):

- (21a) ʔéeʔ=kuméʔen uy ich hwàan
'John's eye is puffy black' (V. Bricker et al. 1998:7)
- (21b) čak=p'ošéʔen le ʔàab'loʔ
'those plums are red' (V. Bricker et al. 1998:60)
- (21c) čak=p'ošéʔen uy ich le š č'úpaloʔ
'that girl's face is flushed' (V. Bricker et al. 1998:60)
- (21d) čak=yaʔp'éʔen le p'àakoʔ
'those many tomatoes are red' (V. Bricker et al. 1998:61)
- (21e) le nòok'oʔ čak=poséʔen
'that cloth is stained red or faded red' (V. Bricker et al. 1998:60)
- (21f) b'áʔaš ten čak=yuléʔen a p'úʔuk
'why is your cheek raw red?' (V. Bricker et al. 1998:61)
- (21g) t in manah hun p'éel k'úum k'áam=b'anéʔen
'I bought a pie-pan squash that was yellow' (V. Bricker et al. 1998:144)
- (21h) sak=haʔ'éʔen u pòol
'his hair is gleaming white' (V. Bricker et al. 1998:239)
- (21i) yáʔaš=pak'éʔen le k'áašoʔ
'that forest is an expanse of green' (V. Bricker et al. 1998:313)

In (21a), ʔéeʔ=kuméʔen is based on ʔéek' 'black,' but the compound in which it appears refers to a puffy black or deep purple, as in a sky dark with clouds, or, in this case, a bruised eye. The examples based on čak 'red' characterize this color in multiple ways. The 'red' meaning of čak=p'ošéʔen is sufficient in (21b), but in (21c), its second meaning, 'flushed,' is more appropriate. And if the intention is to refer to the visual spectacle of many red tomatoes in one place, then čak=yaʔp'éʔen is the obvious choice (21d). On the other hand, if the red in question is faint, then čak=poséʔen can be used to describe it as "stained" or "faded" (21e). And if the red has a rubbed or scrubbed appearance, then čak=yuléʔen describes it as "raw red" (21f). The remaining examples (in [21g–i]) illustrate the use of other stems with the terms for "yellow," "white," and "green."

4. SOUND SYMBOLISM

The Calepino de Motul contains a few examples of sound symbolism, also known as onomatopoeia, which is 'the formation of a word by imitating the natural sound of the object or action involved' (Webster's New Twentieth Century Dictionary, p. 1250). They are listed below:

(22)	<u>Onomatopoeia</u>	<u>Gloss</u>
	am	sound, noise made by heavy footstep, earthquake
	cilin-cilin	sound of kettledrum or bell
	cuncum	noise or sound of feet or person walking
	tzan	sound or pealing of a metal bell or stone
	čhululu	noise made by intestines when someone is hungry
	hum	sound, noise, din, clatter, clangor; buzzing, humming (bees, wasps, stone), ringing (in ears), wheezing (of asthmatic person)
	poom	boom!, heavy blow, sound of falling large object
	tħob	sound of water

Of these, hum has a more generic meaning, referring to a variety of audible effects that are not restricted to a single object or action. Although it has some of the same meanings as the English word, hum, and is spelled in the same way, the pronunciation of the vowel would have been “oo.” The Calepino provides the following contextual examples of the use of čhululu and poom:

(23a) čhululu ci v tħan in nak t u men vjħ t u men hanal
 ‘čhululu is the noise my stomach makes from hunger for food’ (Ciudad Real 1600?: fol. 160r)

(23b) poom ca lubi Juan ti be
 ‘John fell with a boom on the road!’ (Ciudad Real 1600?: fol. 380v)

The names of three birds and one mammal in Modern Yucatec obviously echo the sounds they make:

(24)	<u>Faunal Name</u>	<u>Gloss</u>
	(š) čak=č’iĩč ‘ib’	cardinal
	k’á?aw	crow
	k’éek’en	pig
	pú?uhuy	nighthawk

The čak ‘red’ prefix in (š) čak=č’iĩč ‘ib’ refers to the color of the cardinal and the rest of its name to its call. The name for the crow resembles the sound (“caw”) attributed to crows in English. And k’éek’en must refer to the grunting of pigs, which is heard as “oink-oink” in English.

Other examples of onomatopoeia in the Hocaba dictionary of Modern Yucatec include:

(25)	<u>Onomatopoeia</u>	<u>Gloss</u>
	b’okol	sound made by movement
	b’ub’uč	trotting sound
	č’i?	chirp
	hìin	wheezing sound
	hùum	sound, noise
	kilim	thunder, hum (refrigerator)
	k’olo?	gobble
	nikič	squeak
	pī?is	hiss
	popok	sound of flapping wings

tiriš	hiss, buzz
was	sound of hissing
wiis	wheeze

Two roots on this list are Modern cognates of Colonial roots listed in (22): *hùum* and *kilim*. Two affects, one verbal (*humancil* ‘to make many sounds and much noise’) and the other adjectival (*humucnac* ‘noisy, loud’) were derived from *hum* in Colonial Yucatec, and a verbal affect (*kíilb’al* ‘to tremble, shake, quake’) must be derived from *kilim* in Modern Yucatec. In addition, the verb, *boh* ‘to beat, strike hollow object, which emits a ringing sound,’ is the source of an adjectival affect (*bobohnac* ‘ringing hollow’) in Colonial Yucatec and two affect verbs (*b’ohb’al* ‘to ring hollow’ and *b’ohláankil* ‘to creak, make noise’) in Modern Yucatec. Similarly, the source of *bubuchancil* ‘to lose time while walking, wander alone sadly’ in Colonial Yucatec and its cognate, *b’ub’učáankil* ‘to trot along’ in Modern Yucatec are probably derived from an onomatopoeic root, *bubuch* (phonetic [b’ub’uč]) that refers to a trotting sound. And the affect verb, *ʔáamb’al* ‘to roar (plane), rumble (earth),’ in Modern Yucatec must be related to Colonial *am* ‘sound, noise made by heavy footstep, earthquake,’ from which an affect verb, *aanac* ‘to resound, sound loudly,’ was also derived.

5. SOME SEMANTIC FOCI OF AFFECTS

There is no question that the affects enhance Maya spoken and written language by making it more vivid and expressive, and they do so by appealing to the five senses: sight, hearing, taste, touch, and smell. The basic color terms, by their very nature, refer to visual stimuli, and they augment their effect by combining with other roots that add nuances that the color terms alone lack. Thus, in Modern Yucatec, the addition of the transitive root *hač’* ‘to hit, whip, beat’ to *ʔéek’* ‘black,’ *čak* ‘red,’ *k’áan* ‘yellow,’ *sak* ‘white,’ and *yáʔaš* ‘green’ results in colors on large, flat surfaces that are glossy, gleaming, shiny, or brilliant (V. Bricker et al. 1998:92–93):

(26)	<u>Color=hač’éʔen</u>	<u>Gloss</u>
	<i>ʔéek’=hač’éʔen</i>	glossy black (expanse, wall)
	<i>čak=hač’éʔen</i>	gleaming red (expanse, wall)
	<i>k’áan=hač’éʔen</i>	shiny yellow (expanse, wall)
	<i>sak=hač’éʔen</i>	gleaming, brilliant white (house after snowstorm)
	<i>yáʔaš=hač’éʔen</i>	brilliant green (expanse, wall)

At the other extreme are faded colors that are referred to by compounding the transitive root *puk’* ‘to dilute, dissolve, mix’ with each of the five color terms (V. Bricker et al. 1998:223–224):

(27)	<u>Color=puk’éʔen</u>	<u>Gloss</u>
	<i>ʔéek’=puk’éʔen</i>	faded black
	<i>čak=puk’éʔen</i>	rosy
	<i>k’áan=puk’éʔen</i>	faded yellow
	<i>sak=puk’éʔen</i>	faded
	<i>yáʔaš=puk’éʔen</i>	faded green

Compounds like these have provided the mechanism for expressing brightness and saturation, as well as relative size, discreteness, and opacity (V. Bricker 1999).

Vision is not the only sense encoded by color compounds in Modern Yucatec. Touch is incorporated by combining color terms with the affect roots, ?ol 'soft, tender,' p'oš 'break out in rash,' and yú?ul 'blunt,' as in the following compounds (V. Bricker et al. 1998:17, 223, 318):

- | | | |
|------|---|---|
| (28) | <u>Color=?olé?en</u>
?éek'=?olé?en
čak=?olé?en
k'áan=?olé?en
sak=?olé?en | <u>Gloss</u>
black (tender tips of young leaves)
red (tender tips of young leaves; skin of young person affected by sun)
yellow (tender tips of young leaves)
white (tender tips of young leaves; fine white cloth) |
| (29) | <u>Color=p'ošé?en</u>
?éek'=p'ošé?en
k'áan=p'ošé?en
sak=p'ošé?en
yá?aš=p'ošé?en | <u>Gloss</u>
prickly black (black wasps under nest)
prickly yellow
prickly white
prickly green (fruit of false canna) |
| (30) | <u>Color=yulé?en</u>
?éek'=yulé?en
čak=yulé?en
k'áan=yulé?en
sak=yulé?en | <u>Gloss</u>
abraded black (mole that has been rubbed and is oozing)
raw red (nose from cold, ischial callosities of monkeys)
abraded yellow
abraded white |

These compounds refer to texture: the tender tips of young leaves of different colors, the spines on the green fruit of a false canna (*Canna indica* L.), the abraded surface of a black mole that has been rubbed, or the ischial callosity of a monkey. Their link with the affects is both formal and semantic, because of the explicit affect component of the compound stem.

Texture is a more significant semantic focus of the affects themselves, as shown in Table 12-3, where almost 60 percent of the verbal and adjectival affects in the Hocaba Dictionary refer to objects that are or are becoming rough (?išb'al, ?i?iškil), scaly (hošb'al, hohoškil), lumpy (nulb'al, nunulkil), fuzzy (čapb'al, čačapkil), pimply (košb'al, kokoškil), grainy or granular (kelb'al, kekelkil), gritty (hap'b'al, hahap'kil), smooth (b'í?ib'al, b'í?ib'í?kil), slippery (poč'b'al, popoč'kil), greasy (č'alb'al, č'ač'alkil), soft (?olb'al, ?ó?olkil), squishy (yač'b'al, yayač'kil), creamy (č'ukb'al, č'učuhkil), gelatinous (t'ayb'al, t'at'aykil), gooey (t'oyb'al, t'ot'oykil), or powdery (mayb'al, mamaykil). Similarly, almost 50 percent of the -mal verbal and -ci adjectival affects in the Calepino de Motul refer to objects that are or are becoming hard (bahmal, babahci; cuymal, cucuyci; nolmal, nonolci), rough (hoxmal, hoxhoxci), sticky (tzaymal, tzatzayci), smooth (cicipci, yulmal), slippery (hacmal, hahacci; holmal, holholci), greasy (aymal, aayci; akmal, aakci), soft (luumal, luluci), dry (č'alma, č'alč'alci; čijmal, čičici), wet (makmal, mamakci; ppomal, ppooppoci), wrinkled (oomal, ooci), or pulverized (mumuyci, muymuyci) (Table 12-1). Although not all the tactile properties mentioned in the two dictionaries are the same, the affects concerned with this sense are much more numerous than the affects pertaining to the other four senses.

The sense of hearing is implied by two -bal affects and one -áankil affect in the Hocaba Dictionary:

- | | | |
|------|-------------|--------------------------------|
| (31) | ?áamb'al | 'roar (plane), rumble (earth)' |
| | b'ohb'al | 'ring hollow' |
| | b'ohláankil | 'creak, make noise' |

Such affects were better represented in the Calepino de Motul, with both verbal and adjectival stems:

- | | | |
|------|--------------|--|
| (32) | heppmal | 'creak, squeak (wood)' |
| | heheppancil | 'creak, squeak (wood)' |
| | humancil | 'make many sounds and much noise' |
| | nolchalancil | 'creak, screech, squeak' |
| | oppchalancil | 'clatter, rustle, squeak' |
| (33) | bobohnac | 'ringing hollow' |
| | culucnac | 'very loud (sound of thunder, drum)' |
| | cululnac | 'very loud (sound of thunder, drum)' |
| | hehecnac | 'that which squeaks, creaks, crackles, grates' |
| | heheppci | 'creaking, squeaking' |
| | humucnac | 'noisy, loud' |
| | tilicnac | 'noisy (thunder, stomach, drums)' |
| | titici | 'noisy' |
| | titicnac | 'noisy' |

Two -áankil verbal affects in the Hocaba dictionary invoke the sense of smell:

- | | | |
|------|---------------|-----------------|
| (34) | b'òokáankil | 'give off odor' |
| | b'uğ'iláankil | 'smoke' |

Cognates of these affects are documented in the Calepino de Motul, along with one -mal affect that also alludes to odors:

- | | | |
|------|----------|---------------------|
| (35) | bocancil | 'give off odor' |
| | bucancil | 'smoke, emit smoke' |
| | bucmal | 'stink of smoke' |

There are, in addition, seven -nac adjectival affects that have the same focus on smell in the Calepino de Motul:

- | | | |
|------|----------|-------------------------------------|
| (36) | bococnac | 'odiferous' |
| | bocolnac | 'smelly, odiferous' |
| | buyucnac | 'odiferous, smelly' |
| | çamacnac | 'sweet smelling' |
| | tzihinac | 'reeking of urine' |
| | tapacnac | 'fragrant, penetrating' |
| | tuucnac | 'stinking, fetid, spoiled, tainted' |

The Calepino de Motul has one affect that refers to taste (actually the lack of it):

- | | | |
|------|---------|---|
| (37) | pechmal | 'be tasteless because of lack of fire (boiled or roasted food)' |
|------|---------|---|

The Hocaba Dictionary has none.

Thus, of the five senses, vision is most prominent in color compounds in both Colonial and Modern Yucatec, texture is more common in the verbal and adjectival affects of both Colonial and Modern Yucatec, and auditory and olfactory characteristics are more numerous in the affects of Colonial Yucatec than in Modern Yucatec, but not to the same degree as texture in both Colonial and Modern Yucatec. Taste received a little attention in Colonial Yucatec and is entirely lacking in the affects of Modern Yucatec.

6. SUMMARY OF CHANGES IN AFFECTS THROUGH TIME

The principal verbal affect suffix underwent significant changes, from -m to -b'al in the transition from Colonial to Modern Yucatec. The adjectival affect marked by -ci (phonetic [kih]) in Colonial Yucatec changed to a lesser degree to -kil in Modern Yucatec. The -nac affects in Colonial Yucatec have not survived in Modern Yucatec.

NOTE

1. In comparing the -nak with the -kih adjectival affects in Itsaj, Hofling (2000:172) says that they are similar, but that -nak affects "have a more active verbal flavor," and he says that the -nak affects in Mopan "tend to have a more verbal flavor with semantics of activity" (2011:23). This was sometimes the case in Colonial Yucatec, as in hahacci 'slippery, slick' versus hacacnac 'slipping, sliding' in (12), but not always (compare the glosses for aayci/ayacnac, aakci/akacnac, cuculci/culucnac, and luluci/lulucnac in [12]).

REDUPLICATION

The Calepino de Motul contains numerous examples of reduplication, of which there are three basic kinds: (1) full or complete reduplication of the root or stem, (2) partial reduplication of the root, and (3) reduplication with infixes. Both Colonial and Modern Yucatec have a variety of reduplicated adjectival and participial stems, closely followed by transitive stems. The other form classes—nouns, particles, and intransitive roots—also have examples of reduplication.

1. ADJECTIVAL REDUPLICATION

Adjectival roots and affect stems are the principal sources of reduplicated adjectives.

1.1. REDUPLICATED ADJECTIVES BASED ON ADJECTIVAL ROOTS. The Calepino de Motul contains evidence of both partial and complete reduplication of adjectival roots. Some examples of partial reduplication appear in (1) below:

(1)	Adjectival Root	Gloss	Partial Reduplication	Gloss
	cet	equal, even; jointly, together	ce-cet	jointly, together, equally
	cooz	superficial, shallow [not deep]	co-coz	slightly shallow, not very deep
	çac	white	ça-çac	white
	ça(a)l	light	ça-çal	rather light [not heavy]
	çap	insipid	ça-çap	insipid, tasteless
	çiz	cold, cool	çi-çiç	cold
	çuuç	sour, acrid, acidic, astringent	çu-zuç	slightly sour, acrid, acidic, astringent
	chac	red	cha-chac	red
	chan	small, little	cha-chan ~ chi-chan ¹	small, little
	çhuy	slowly, little by little	çhu-çhuy	very slowly
	kaz	somewhat, semi	ka-kaz	somewhat, semi
	noh	right-handed; principal, great	no-noh	dextrous, skillful, industrious, clever, robust, vigorous

toop	precipitously, recklessly, violently	to-top	precipitously, recklessly, violently
tzaa	persistent	tza-tza	persistent
yax	green	ya-yax	green

In only five of these sets of examples are the partially reduplicated stems distinguished semantically from their related adjectival roots. Thus, *ça(a)l* meant 'light,' but *ça-çal* meant 'rather light (not heavy)'; *çuuo* meant 'sour, acrid, acidic, astringent,' but *çu-zuo* meant 'slightly sour, acrid, acidic, astringent'; and *chuy* meant 'slowly, little by little,' but *chū-chuy* meant 'very slowly' in Colonial Yucatec. The qualifiers—rather, slightly, and very—in the glosses of the partially reduplicated stems modify the intensity of the characteristic signified by the related adjectival roots, either increasing it or decreasing it from its original meaning. The Calepino de Motul treats the members of the other pairs as synonyms of each other. Thus *chac* and *cha-chac* both mean 'red,' *kaz* and *ka-kaz* both mean 'somewhat, semi,' et cetera.

The contrast in meaning is greater between fully reduplicated stems and their adjectival roots:

(2)	Adjectival Root	Gloss	Full Reduplication	Gloss
	ci	sweet, tasty, delicious, pleasant	ci-ci	sweet (words)
	com	short, brief	con-con	briefly but rapidly
	com	short, brief	coon-coon	few
	tzeem	thin, feeble, frail	tzeem-tzeem	long, wasting (illness)
	chac	red	chac-chac	very red
	chan	small, little	chan-chan	very small
	ek	black	ek-ek	black
	kan	ripe, yellow	kan-kan	yellow
	pem	thick	pem-pem	thick, coarse
	ya	painful, sore	ya-ya	very painful, very regretful

Here, there is no doubt that full reduplication increases the intensity of the characteristic signified by the related adjective, as the following sentences containing the reduplicated adjectives, *coon-coon* 'few,' *chan-chan* 'very small,' and *ya-ya* 'very painful, very regretful' show:

- (3a) *coon-coon* vinic hele lae
'there are few people now' (Ciudad Real 1600?: fol. 81v)
- (3b) *coon-coon* ah men
'he is an official who seldom appears' (Ciudad Real 1600?: fol. 81v)
- (3c) *chan-chan* in vaan cuchi
'I used to be very short' (Ciudad Real 1600?: fol. 442r)
- (3d) ma vchac v tzacic voc ti *chan-chan* hanal
'I cannot be satisfied with so little food' (Ciudad Real 1600?: fol. 114r)
- (3e) bin v *ya-ya* tzectob ti hun-cach lukul
'he will punish them severely forever' (Ciudad Real 1600?: fol. 196v)

The semantic distinction between the full and partial reduplication of adjectives is much clearer in Itsaj, where the contrast has been elicited systematically by Hofling (2000:28–30), who says that “complete reduplication occurs with adjectives to mark high intensity” and “partial reduplication indicates moderate intensity.” He uses “rather” in his glosses of partially reduplicated stems and “very” in his glosses of completely reduplicated stems: e.g., k’u-k’uy ‘rather mischievous’ versus k’uy-k’uy ‘very mischievous.’

The only fully reduplicated stems of words derived from adjectives in the Hocaba dictionary of Modern Yucatec are based on roots that end in a nasal consonant:

(4)	Adjectival		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	kóom	short	kóon-kon	short
	k’áʔam	strong, vigorous, violent	k’áʔan-k’áʔan	moderately strong
	k’an	yellow	k’aan-k’an	yellow, orange
	pìim	thick	pìim-pim	thick

The Hocaba dictionary contains a single example of a partially reduplicated nasal-final root in a compound stem: š mùu-mu-n=heʔ ‘unlaid egg [of chicken]’ (< mùun ‘green, tender’ and heʔ ‘egg’).

Several patterns of partial reduplication appear in the Hocaba dictionary. In reduplicated stems based on adjectival roots with short vowels, the reduplicand is a prefix:

(5)	Adjectival		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	čak	red, pink, orange, rust-colored	ča-čak	red
	čan	little	či-čan ²	little
	sak	white	sa-sak	white
	ʔuʧ	good, just	ʔú-ʔuʧ	nice

If the root has a long vowel and high tone, the reduplicand is an infix:

(6)	Adjectival		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	kóoč	wide, broad, expansive	kóo-ko-č	very wide
	sáal	light [not heavy]	sáa-sa-l	glib (words)
	síis	cold	síi-si-s	frigid

The same is true if the vowel in root is long and low:

(7)	Adjectival		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	k’àas	bad, ugly	k’aa-k’a-s	evil, poisonous
	sàak’	itchy	sàa-sa-k	itchy

In one case of a root with a long vowel, the reduplicand also has a long vowel and is therefore a prefix: náa-nááč ‘rather far’ (< nááč ‘far’).

The glosses of the reduplicated terms in (5)-(7) contain a mixture of moderate and high intensity, suggesting that some partially reduplicated terms have acquired semantic features of the earlier completely reduplicated versions of these terms. Thus, kóo-ko-č ‘very wide’ and k’aa-k’a-s ‘evil, poisonous’ refer to high intensity, but náa-náač ‘rather far’ and ʔú-ʔuʔ ‘nice’ encode moderate intensity. The contrast between kóoč ‘wide, broad, expansive’ and kóo-ko-č ‘very wide’ is clarified in context in (8a-b):

- (8a) le in nòok’aʔ sen kóoč
 ‘these clothes of mine are very wide’ (V. Bricker et al. 1998:131)
- (8b) u nòok’ š piileʔ kóo-koč
 ‘Phyllis’ dress is very wide’ (V. Bricker et al. 1998:131)

In (8a), “very” is expressed by the adverbial particle, *sen*, whereas in (8b), it is the reduplication in *kóo-ko-č* itself that expresses the same intensity.

The significance of reduplication in color terms is problematic in both Colonial and Modern Yucatec. The Spanish glosses in the *Calepino de Motul* do not distinguish semantically between the plain and partially reduplicated forms of the terms for “red,” “green,” and “white” (cf. [1] above), nor between the plain and completely reduplicated forms of the term for “black” (cf. [2] above). Only the glosses for the plain and completely reduplicated forms of the term for “red” are distinguished semantically in that source (cf. [2] above).

Reduplicated color terms appear with some frequency in the Books of Chilam Balam of Chumayel and Kaua, but they lack translations into Spanish by contemporary bilingual speakers of Maya and Spanish that might have resolved the ambiguity evident in the *Calepino*. Furthermore, the overwhelming majority of such color terms in those Books are only partially reduplicated. Only the term for “red” has both complete and partial reduplications. The term for “yellow” is always completely reduplicated in those sources.

The Hocaba dialect of Modern Yucatec has retained only the partially reduplicated form of “red” and “white” and the fully reduplicated form of “yellow.”

For an understanding of what the original semantic distinction between the complete and partial reduplication of color terms might have been, it is necessary to turn to Itsaj, which seems to have been more conservative in this respect, with both partial and complete reduplication for all five color terms (Hofling and Tesucún 1997:877–878, 903–904):

(9)	Partial		Full	
	<u>Reduplication</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	ʔe-ʔekʔ	rather black	ʔeekʔ-ʔeekʔ	very black
	čə-čək	rather red	čək-čək	very red
	kʔə-kʔən	rather yellow	kʔən-kʔən	very yellow
	sə-sək	rather white	sək-sək	very white
	yaʔ-yaʔaš	rather green	yaʔaš-yaʔaš	very green

On the other hand, Mopan has retained only the completely reduplicated color terms in column 3 in (9) (Hofling 2011:6, 21, 661).

1.2. REDUPLICATED ADJECTIVES BASED ON AFFECT STEMS. The adjectival affects are marked by -ci and -nac (cf. 2. in Chapter 12). Reduplication is a characteristic of all the -ci affects but of only one-third of all -nac affects.

Table 13-1. Fully reduplicated adjectives marked by -ci in the Calepino de Motul (Ciudad Real 1600?).

Adjective	Gloss
bi-bi-ci	slightly patched ?
can-can-ci	swollen (body part), tightened, hard (clay, wood, stone); disheveled (hair)
çab-çal-ci	drying after being wet {çalçalci misspelled}
çin-çin-ci	extended, stretched
tzay-tzay-ci	very sticky
chen-chen-ci	very calm, peaceful {çhençhenci misspelled}
hol-hol-ci	slippery, smooth
hox-hox-ci	rough
lác-lác-ci	coagulating, curdling
lem-lem-ci	strong, robust, tied tightly
lotz-lotz-ci	coagulated, curdled
lu-lu-ci	soft, soaked
maz-maz-ci	fraying, wearing out (cord)
moch-moch-ci	retracted, pulled back, shrunken, lame, crippled
mul-mul-ci	piled up
muy-muy-ci	pulverized, sifted
nol-nol-ci	hardened (clay, bread)
pok-pok-ci	drenched
pox-pox-ci	stuffed
ppoo-ppo-ci	filthy and drenched with perspiration (clothes)
ppul-ppul-ci	stuffed, swollen (boot)
ppuuy-ppuy-ci	abraded, crumbled
tepp-tepp-ci	swollen, taut
tij-tii-ci	noisy
uk-uk-ci	humid
xek-xek-ci	fallen apart from overcooking

1.2.1. REDUPLICATED ADJECTIVES MARKED BY -CI. The Calepino de Motul contains 81 adjectival stems marked by -ci, of which 28 involve full reduplication (Table 13-1) and 53 are partially reduplicated (Table 13-2). Only three fully reduplicated stems also have partially reduplicated counterparts. The glosses for the two kinds of stems are identical:

(10)	Partial <u>Reduplication</u>	Full <u>Reduplication</u>	<u>Gloss</u>
	mu-muy-ci	muy-muy-ci	pulverized, sifted
	no-nol-ci	nol-nol-ci	hardened (clay, bread)
	po-pox-ci	pox-pox-ci	stuffed

A significant difference between the full and partially reduplicated stems in Tables 13-1 and 13-2 is the presence of root-final nasal consonants in Table 13-1 and their complete absence in the much larger sample in Table 13-2:

Table 13-2. Partially reduplicated adjectives marked by -ci in the Calepino de Motul (Ciudad Real 1600?).

Adjective	Gloss
a-ay-ci	juicy, greasy, sticky
a-ak-ci	humid, greasy
ba-bah-ci	hard, stiff (dough, bread, mud, wood, tree), shrivel (limb, skin, needlework), unyielding, shrunken (skin, limb)
ba-bai-ci	smooth, combed (hair)
bi-bil-ci	trampled, dragged along
bo-boh-ci	drying, dessicating (wound); dry (bark of trees); parchment) filthy
ci-cib-ci	filthy, dirty
ci-cip-ci	smooth, slippery (soap)
co-cotz-ci	brittle, fragile, easily burst (cord, thread)
co-coɔ-ci	rolled up (parchment)
co-coh-ci	tight, compressed, tightly pressed, thick (closely spaced stakes)
co-col-ci	loose
co-cop-ci	arched, bent, folded
cu-cuc-ci	fainting, swooning
cu-cuc-ci	very ripe (fruit)
cu-cutz-ci	unravelling at top or bottom (cloth)
cu-cuch-ci	taken treacherously
cu-cuy-ci	hardened (fruit); clumsy (man walking)
cu-cul-ci	hard, hardened (abscess, pimple, boil)
cu-cul-ci	noisy, clattering
ça-çah-ci	dry, parched by the sun (leaves of tree)
çi-çi-ci	very parched (plant)
ci-ciz-ci	very parched (plant) {çiçiçi misspelled}
ço-zot-ci	swollen, full of air (wine bag), inflated, stuffed (stomach full of food or gas)
cu-zul-ci	soft, very ripe (fruit) {çuzulci misspelled}
tzi-tzi[c]-ci	unravelling
ɔa-ɔa[c]-ci	humid
cha-chal-ci	melting in sun or fire (wax, grease) {chachalci misspelled}
çha-çha[c]-ci	remembering or learning quickly
çha-chap-ci	greasy, dirty, filthy, stained with filth {chachapci misspelled}
çhe-çeh-ci	very close together, tight, compact
ha-hac-ci	slippery, slick
ha-ha[ɔ]-ci	shiny (knife, glossy horse, combed hair of a woman) {hahacci misspelled ?}
ha-hax-ci	curly, twist (hair)
he-hepp-ci	creaking, squeaking
hu-huch-ci	dense, thick, close-woven (blanket, basket)
hu-huth-ci	narrow, tight
ka-kax-ci	tied very tightly
la-lab-ci	rotten (plants, roots)
lo-lo[c]-ci	damp, humid (perspiration, fog, drizzle)

Table 13-2. (cont'd) Partially reduplicated adjectives marked by -ci in the Calepino de Motul.

Adjective	Gloss
ma-mak-ci	soft, tender
mu-muk-ci	patient, long-suffering
mu-muy-ci	pulverized, sifted
no-nol-ci	hardened (clay, bread)
no-noth-ci	thin, feeble, frail (man because of some illness); impoverished, dried out (soil that lacks moisture and substance and is not good for cornfields, where there are rocks)
o-oo-ci	wrinkling
o-opp-ci	dried out from too much toasting, roasting, or cooking
pa-pach-ci	stuck, sticky, viscous { <i>papakci</i> misspelled}
pi-piz-ci	ordinary, common
po-pot-ci	smooth, slippery
po-pox-ci	stuffed
ua-uah-ci	dry (corn on the cob, beans in pod)
xi-xich-ci	full, stuffed, swollen
xu-xul-ci	to the utmost

- (11)
- | Full | | Gloss |
|----------------------|--|--|
| <u>Reduplication</u> | | |
| can-can-ci | | swollen (body part), tightened, hard (clay, wood, stone); dishelved (hair) |
| çin-çin-ci | | extended, stretched |
| chen-chen-ci | | very calm, peaceful |
| lem-lem-ci | | strong, robust, tied tightly |

Missing from both tables, of course, is unambiguous evidence of root-final glottal stop, but the doubling of vowels, combined with semantic information, have made it possible to identify the presence of a glottal stop in several cases. None of the roots in either table seem to have had a root-final laryngeal "h."

In the transition from Colonial to Modern Yucatec, -ci became -kil, and the number of fully reduplicated adjectives marked by this suffix declined significantly. Only nasal- and glottal-stop-final roots have fully reduplicated forms today. The fully reduplicated nasal-final examples in the Hocaba dictionary of Modern Yucatec are listed below:

- (12)
- | Full | | Gloss |
|----------------------|--|--|
| <u>Reduplication</u> | | |
| b'an-b'an-kil | | fat, heavy |
| ɸan-ɸan-kil | | hardened, tempered |
| ɸ'an-ɸ'an-kil | | dense (leaves), crammed (meat in stew) |
| čin-čin-kil | | bowed [from weight of fruit] |
| č'en-č'en-kil | | heavy |
| kan-kan-kil | | stiff (neck, back) |
| son-son-kil | | thick, covered (with weeds or vines) |
| tin-tin-kil | | taut, tight |
| t'in-t'in-kil | | very tight (guitar strings) |

They seem to be examples of persistent nasalization in cases where the base or root of the reduplication contains a final nasal consonant and the copy of a reduplicated form must have the same feature. However, the Hocaba dictionary also contains two partially reduplicated N-final examples, implying that the retention of final N is optional:

- (13) Partial
- | <u>Reduplication</u> | <u>Gloss</u> |
|----------------------|-------------------|
| le_-len-kil | firm, heavy |
| wa_-wan-kil | stuffed, blown up |

The fully reduplicated stems based on roots that end in a glottal stop appear below:

- (14) Full
- | <u>Reduplication</u> | <u>Gloss</u> |
|----------------------|---------------------------|
| b'iʔi-b'iʔ-kil | soft, smooth |
| ʕ'iʔ-ʕ'iʔ-kil | sparkling clean |
| ʕ'úʔu-ʕ'uʔ-kil | soft, mushy |
| čáʔa-čáʔa-kil | loose |
| háʔa-haʔ-kil | juicy |
| sʔi-sʔi-kil | dry [in sun or near fire] |
| t'iʔ-t'iʔ-kil | distended |
| yuʔ-yuʔ-kil | soft |

It should be noted that, in the data, sometimes a morpheme-final glottal stop has an echo vowel (a total copy of the preceding vowel) after it. Consequently, the root and the reduplicated form are realized as CV? or CV?V.

Two roots that end in a glottal stop are only partially reduplicated in the Hocaba dictionary:

- (15) Partial
- | <u>Reduplication</u> | <u>Gloss</u> |
|----------------------|-----------------------------|
| hu_-huʔ-kil | very thick (leaves on tree) |
| pa_-paʔ-kil | drenched |

Another group of reduplicated CV-CVʔ-kil stems are based on roots that end in glottalized velar /k'/ consonants:

- (16) Partial
- | <u>Root</u> | <u>Reduplication</u> | <u>Gloss</u> |
|-------------|----------------------|------------------------------|
| čak' | ča_-čaʔ-kil | very sharp (knife, scissors) |
| čok' | čo_-čoʔ-kil | crammed |
| k'áak' | k'a_-k'aʔ-kil | dessicated |
| nuḱ' | nu_-nuʔ-kil | encysted |
| pʔik' | pi_-piʔ-kil | loose (post, tooth) |
| taḱ' | ta_-taʔ-kil | sticky |
| tuḱ' | tu_-tuʔ-kil | bulging |

These velar-final roots are interesting because the original root is modified when followed by /kil/, a suffix beginning in a velar consonant.

As can be seen below, non-velar glottalized root-final consonants are retained:

(17)	Partial	
	<u>Reduplication</u>	<u>Gloss</u>
	ʔó-ʔoǂ'-kil	covered with wrinkles
	ʔó-ʔop'-kil	fragile
	ha-hap'-kil	gritty
	he-hep'-kil	tightened, cinched
	hi-hiǂ'-kil	extractable; painful (crying)
	hi-hič'-kil	porous, grainy
	ho-hoǂ'-kil	disintegrated, rotten
	ho-hoč'-kil	limp
	ki-kiǂ'-kil	grimy
	le-leǂ'-kil	glistening, shining
	lo-loǂ'-kil	shrivelled, wrinkled
	na-naǂ'-kil	cramped, crowded
	ni-nič'-kil	itchy
	no-not'-kil	shrivelled
	pa-pač'-kil	weak [from drinking]
	po-poǂ'-kil	very slippery
	sa-saǂ'-kil	elastic, weak, shaky
	te-tep'-kil	easily burst
	to-toč'-kil	very drunk
	ya-yač'-kil	squishy (mud), oozy (blister)

As (18) shows, final h's are also retained before -kil:

(18)	Partial	
	<u>Reduplication</u>	<u>Gloss</u>
	b'a-b'ah-kil	swollen, inflamed [with pus]; crowded (bus, house)
	b'o-b'oh-kil	swollen, flatulent (stomach, like a drum); dry (cough, throat, lungs)
	b'u-b'uh-kil	dense, thick (leaves on trees); splittable
	ǂa-ǂah-kil	well toasted
	ǂu-ǂuh-kil	creamy (beans)
	čo-čoh-kil	hanging (fruits)
	č'e-č'eh-il	sticking up (points or tips)
	ko-koh-kil	densely woven
	no-noh-kil	hanging around
	to-toh-kil	taut, tight
	t'o-t'oh-kil	brittle
	we-weh-kil	loose (grains on corn cob)

Roots ending in plain consonants are also partially reduplicated when followed by -kil (Table 13-3).

On the other hand, the Hocaba dictionary contains examples of b'-, and ǂ'-final roots that reduce them to /ʔ/ before -kil:

(19)	<u>Root</u>	<u>Partial Reduplication</u>	<u>Gloss</u>
	č'ač'	č'a_-č'a₂-kil	squishy
	kiḃ'	ki_-ki₂-kil	dirty, filthy (clothing)

Itsaj has followed a different path in its evolution from Proto-Yucatecan. In Itsaj, the CVC root reduplicates fully as CVC. However, the final consonant of the reduplicated form is systematically realized as a glottal stop, which makes it a reduced version of the original—a glottalized consonant (Hofling 2000:153):

(20)	<u>C'-final roots</u>	<u>Gloss</u>
	b'ə₂-b'əḱ'-kih	very tangled
	he₂-heḃ'-kih	open
	he₂-hep'-kih	squeezed tight
	li₂-lič'-kih	slippery
	lu₂-luḱ'-kih	shivering
	mo₂-moḱ'-kih	shrunk
	mu₂-mu(u)č'-kih	bumpy, lumpy
	pi₂-pič'-kih	slippery
	sə₂-səč'-kih	stretchy
	si₂-siit'-kih	swollen
	ša₂-ša(a)ḱ'-kih	disordered
	p'a₂-p'a₂-kih	splittable

In other words, the Itsaj pattern shows that identical consonants are disallowed in the coda of reduplicated roots, unless, as in the final example, the root ends in a glottal stop. Only roots ending in glottal stops receive such treatment in Modern Yucatec (see [14] above).

1.2.2. REDUPLICATED ADJECTIVES MARKED BY -NAC. The Calepino de Motul contains evidence of only five completely reduplicated adjectives marked by -nac:

(21)	<u>Full Reduplication</u>	<u>Gloss</u>
	can-can-(n)ac	very swollen, tightened
	cip-cip-nac	slippery
	co-co-nac	lewd, dishonest, dishonorable
	tzak-tzak-nac	struck one after another
	nib-nib-nac	fervent

Of these, only the last example has a partially reduplicated counterpart, and both have the same meaning:

(22)	<u>Full Reduplication</u>	<u>Partial Reduplication</u>	<u>Gloss</u>
	nib-nib-nac	ni-nib-nac	fervent

On the other hand, the Calepino lists 46 partially reduplicated adjectives marked by -nac, of which the following are representative:

Table 13-3. Partially reduplicated adjectives marked by -kil in the Hocaba Dictionary (V. Bricker et al. 1998).

Adjective	Gloss
ʔá-ʔay-kil	obese (dog, horse)
ʔí-ʔiš-kil	rough [skin with rash or goose pimples; bark of tree]
ʔó-ʔoɕ'-kil	covered with wrinkles
ʔó-ʔol-kil	soft, tender [leaf, hands of someone who is idle]
ʔó-ʔop'-kil	fragile
ʔú-ʔus-kil	swollen
b'a-b'ah-kil	swollen, inflamed [with pus]; crowded (bus, house)
b'a-b'aš-kil	tight, packed (earth floor in house); grimy
b'a-b'ay-kil	straight
b'i-b'il-kil	clean, rubbed smooth
b'o-b'oh-kil	swollen, flatulent (stomach, like a drum); dry (cough, throat, lungs)
b'u-b'uh-kil	dense, thick (leaves on tree); splittable
ɕa-ɕah-kil	well toasted
ɕa-ɕaʔ-kil	very sharp (knife, scissors)
ɕan-ɕan-kil	hardened, tempered
ɕa-ɕap-kil	fuzzy
ɕu-ɕuɕ-kil	thick (forest)
ɕ'i-ɕ'ip-kil	slippery
ɕ'o-ɕ'op-kil	muddy, marshy
ɕ'u-ɕ'uh-kil	creamy (beans)
čo-čoč-kil	dried up, shrivelled
čo-čoh-kil	hanging (fruits)
ču-čuč-kil	shrivelled, tangled
č'a-č'al-kil	greasy
č'a-č'ay-kil	bloody (meat)
č'e-č'eh-kil	sticking up (points or tips)
č'i-č'iš-kil	thickly clustered (worms, plants)
ha-hal-kil	slippery, smooth
ha-hap'-kil	gritty
he-hep'-kil	tightened, cinched
he-het-kil	easily split, broken
hi-hiɕ'-kil	extractable; painful (crying)
hi-hič'-kil	porous, grainy
hi-hiš-kil	bumpy, pebbly
ho-hoɕ'-kil	disintegrated, rotten
ho-hoč'-kil	limp
ho-hol-kil	slippery
ho-hop-kil	flammable
ho-hoš-kil	grainy, bumpy; crackling (starched clothes); ringing hollow (stone)
hu-hup-kil	dusty [sinking in sand]
hu-huš-kil	bumpy (ground); granular, grainy; scaly

Table 13-3. (cont'd) Partially reduplicated adjectives marked by -kil in the Hocaba Dictionary.

Adjective	Gloss
hu-huy-kil	soft, smooth
ka-kal-kil	grainy, granulated; numb
ke-kel-kil	grainy, granular
ke-keš-kil	grainy
ki-kiʔ-kil	dirty, filthy (clothing)
ki-kiʔ'-kil	grimy
ko-koʒ-kil	frayed
ko-koh-kil	densely woven
ko-koš-kil	pimples, warty
ko-kot-kil	crowded
ku-kuč-kil	sticky
ku-kul-kil	smeared
ku-kup-kil	sultry, becalmed
ku-kut-kil	fat, bulbous
k'i-k'is-kil	swollen (breasts full of milk)
k'o-k'ol-kil	dirty, grimy
k'o-k'os-kil	dry (meal without grease)
k'u-k'uš-kil	gritty
le-leʒ'-kil	glistening, shining
le-len-kil	firm, heavy
lo-lot'-kil	shriveled, wrinkled
ma-may-kil	fine, smooth, powdery
mu-muč-kil	shriveled, frizzy
na-nat'-kil	cramped, crowded
ni-nič'-kil	itchy
no-noh-kil	hanging around
no-not'-kil	shriveled
nu-nul-kil	lumpy [changes position]
pa-pač'-kil	weak [from drinking]
pe-peč-kil	stuck
pi-piʔ-kil	loose (post, tooth)
po-poʒ'-kil	very slippery
p'o-p'oč-kil	spotted, blotchy
p'o-p'ol-kil	developed, grown, well groomed
p'o-p'oš-kil	blotchy, spotted
sa-saʒ'-kil	elastic, weak, shaky
so-sot-kil	swollen [with air]; hollow (sound)
su-sul-kil	drenched
še-šeʔ-kil	dirty
ta-taʔ-kil	sticky
te-tep'-kil	easily burst

Table 13-3. (cont'd) Partially reduplicated adjectives marked by -kil in the Hocaba Dictionary.

Adjective	Gloss
to-toč-kil	stiff, hard
to-toč'-kil	very drunk
to-toh-kil	taut, tight
tu-tuʔ-kil	bulging
t'a-t'ay-kil	gelatinous
t'o-t'oč-kil	hardened
t'o-t'oh-kil	brittle
t'o-t'oy-kil	gooey; well done
t'u-t'uč-kil	well-built, shapely (woman)
wa-waŋ-kil	stuffed, blown up
we-weh-kil	loose (grains on corncob)
ya-yač'-kil	squishy (mud), oozy (blister)
ya-yal-kil	greasy
yu-yul-kil	lumpy (cyst under skin)

(23)	<u>Partial Reduplication</u>	<u>Gloss</u>
	bo-boh-nac	ringing hollow
	co-cop-nac	arched, bent, folded
	chi-chic-nac	shaking violently
	e-el-nac	burning
	ma-mak-nac	soft, tender
	pe-pet-nac	going in circles
	tu-tul-nac	overflowing

The complete set of such reduplicated adjectives can be found in Table 13-4.

Neither the full nor the partial forms of these reduplicated adjectives with -nac occur in the Hocaba dialect of Modern Yucatec. However, they are well represented today in Itsaj, where they behave like the -kih fully reduplicated adjectives, whose root-final glottalized consonants are reduced to a glottal stop in the first syllable (but not in the root itself) (Hofling 2000:172–173):

(24)	<u>C'-final roots</u>	<u>Gloss</u>
	b'aʔ-b'aak'-nak	circling
	b'əʔ-b'ək'-nak	tangled, tangling
	č'oʔ-č'o(o)č'-nak	getting holey
	heʔ-heb'-nak	opening (by itself)
	luʔ-lu(u)t'-nak	shivering
	p'aʔ-p'aʔ-nak ³	opening and closing

Mopan has at least one example of the same kind of construction: čeʔ-ček'-nak 'stiff' (Hofling 2011:23).

Table 13-4. Partially reduplicated adjectives marked by -nac in the Calepino de Motul (Ciudad Real 1600?).

Adjective	Gloss
a-an-(n)ac	noisy, thunderous (thunder, earthquake)
ba-bac-nac	wide, open; strong
ba-bach-nac	lean, thin, slender, weak
ba-bal-nac	wide
be-bech-nac	shaking (tall objects)
bi-bik-nac	wriggling
bi-bix-nac	late
bo-boh-nac	ringing hollow
bo-bok-nac	shaking violently (water in vessel)
bu-buc-nac	move back and forth
bu-buch-nac	losing time while walking, wandering alone sadly
co-coy-nac	wrong, unequal, uneven, tilted
co-col-nac	loose
co-cop-nac	arched, bent, folded
cu-cuc-nac	very ripe (fruit)
cu-cuy-nac	hardened (fruit); trembling
ça-çac-nac	dry, parched by the sun (leaves of tree)
ça-çal-nac	drying out (clothes, earth)
ço-çot-nac	swollen, full of air (wine bag), inflated, stuffed (stomach full of food or gas)
ɔo-ɔoc-nac	feeling intensely
chi-chic-nac	half mad, insane, crazy; half silly, foolish, stupid; astonished that he does not do what he was told nor fetches what he was requested to bring
chi-chic-nac	shaking violently
e-el-nac	burning
ha-ha[ɔ]-nac	shiny, glossy
ka-kam-nac	lifeless, floating
le-lem-nac	resplendent, shining, glittering, bright, flashing
li-lik-nac	on the verge of leaving
lo-loc-nac	brought to a boil
lo-lop-nac	bent, folded, curved
lu-luc-nac	tender, soft, delicate; feeble, weak, frail; flimsy
ma-mak-nac	soft, tender
mi-miz-nac	dragging
mu-muc-nac	hidden, covered, wrapped
mu-muz-nac	itchy
mu-muk-nac	patient, long-suffering
na-nac-nac	unsteady (child, drunk, sick person)
ni-nib-nac	fervent
o-oɔ-nac	wrinkling here and there
o-och-nac	bent, bowed, stooped, crouched
o-om-nac	boiling

Table 13-4. (cont'd) Partially reduplicated adjectives marked by -kil in the Hocaba Dictionary.

Adjective	Gloss
o-ot-nac	throbbing
pa-pal-nac	trembling from fright or fear
pe-pet-nac	going in circles
ppu-ppuc-nac	stooped, crouched
ppu-ppuc-nac	spongy, soft like unspun cotton
ti-tipp-nac	throbbing, pulsating (pulse); move back and forth (boat in water)
tu-tul-nac	overflowing

2. PARTICIPIAL REDUPLICATION

Colonial Yucatec had several kinds of reduplicated participles, one marked by a suffix, three marked by infixes, and one with no affixes at all.

2.1. REDUPLICATED PARTICIPLES MARKED BY -VC. The Calepino de Motul has examples of participles marked by -Vc with both full and partial reduplication. The following participles are fully reduplicated:

(25)	Full	
	<u>Reduplication</u>	<u>Gloss</u>
	biɔ-biɔ-ic	tapered, sharp
	coɔ-coɔ-oc	rolling up, coiling
	coy-coy-oc	tilted, uneven
	em-em-ec	downhill
	kech-kech-ec	twisting, deviating
	kom-kom-oc	full of holes
	mech-mech-ec	twisted, bent
	pach̃-pach̃-ac	crumpled, rumpled, flattened
	uch̃-uch̃-uc	very narrow

Partially reduplicated participles marked by -Vc appear below. The reduplicand is a CV:

(26)	Partial	
	<u>Reduplication</u>	<u>Gloss</u>
	bi-biɔ-ic	tapered, sharp
	co-coɔ-oc	rolled up (parchment)
	co-coy-oc	wrong, unequal, uneven, tilted, inclined to one side
	cu-cuch-uc	stacked one above the other (objects in load)
	cu-cul-uc	low, short (person, tree, stone tower, merlon of battlement)
	e-em-ec ⁴	downhill
	he-het-ec	split, cracked, broken, burst
	he-heth̃-ec	split, broken in many places (ceramic objects)
	pa-pay-ac	narrow, tight
	ppu-pput-uc	small in stature

ta-tal-ac	everywhere
uo-uol-oc	round, spherical
xi-xičh-ic	full, stuffed, swollen
xi-xil-ic	bristling, standing on end

In both cases, the vowel in the suffix echoes the vowel in the root.

Such reduplicated participles do not occur in the Hocaba dialect of Modern Yucatec, but they are derived from a few positional roots in Itsaj (Hofling and Tesucún 1997:477, 612, 625):

(27)	Partial	
	<u>Reduplication</u>	<u>Gloss</u>
	če-čel-ek	rather sloped
	no-nok-ok	rather hunched over
	tu-tuč'-uk	rather oval

2.2. REDUPLICATED PARTICIPLES WITH INFIXES. Three kinds of infixes co-occur with fully reduplicated participles: -Vl-, -VN-, and -maN-.

2.2.1. REDUPLICATED PARTICIPLES MARKED BY -VL-. Many reduplicated participles in the Calepino de Motul have the syllable, Vl, inserted between the reduplicated elements:

(28)	Full	
	<u>Reduplication</u>	<u>Gloss</u>
	biz-il-biz	bored, pierced, perforated
	čau-al-čau	tangled, topsy-turvy (thread)
	ɔoc-ol-ɔoc	worn out, in pieces
	em-el-em	downhill
	hat-al-hat	torn, ripped, split in many places
	muk-ul-muk	long suffering
	nup-ul-nup	opposing, hostile, resistant
	ppit-il-ppit	persistent, insistent
	tom-ol-tom	disorganized, incoherent
	uec-el-uec	spilled, scattered, shed here and there

In each case, the vowel in the infix echoes the vowel in the root. Other examples of such reduplicated participles appear in Table 13-5.

The Hocaba dictionary of Modern Yucatec has one example of such a reduplication: čé?eh-il-čé?eh 'smiling' < čé?eh 'laughter,' in which the infix (-il-) does not echo the vowel in the root /e/. It also has a contextual example of this reduplicated participle:

(29)	čé?eh-il-čé?eh uy ič
	'he is smiling' (V. Bricker et al. 1998:68)

2.2.2. REDUPLICATED PARTICIPLES MARKED BY -UN- AND -EN-. The general pattern in the Calepino de Motul was one of infix-vowel disharmony, such that roots with the back vowels, /o/ and /u/, co-occurred with -eN-, and roots with the front vowel, /e/, co-occurred with -uN-. The examples in (30) illustrate the use of -eN- with /o/ roots:

Table 13-5. Reduplicated adjectives with -VI- infix in the Calepino de Motul (Ciudad Real 1600?).

Adjective	Gloss
app-al-app	broken ground
biz-il-biz	bored, pierced, perforated in several places
bik-il-bik	wriggle, wind
buh-ul-buh	split in several places
cin-il-cin	severely wounded
cutz-ul-cutz	splintered (wood), unravelled (edge of cloth)
çaal-al-çal	drying after being wet
çau-al-çau	tangled, topsy-turvy (thread)
çib-il-çib	full of wood borers
cuc-ul-zuc	thrown, stretched, spread out, extended here and there {çuculzuc misspelled}
tzay-al-tzay	one after the other
ɔac-al-ɔac	added, knotted here and there (cane, reed); running one above the other (steps)
ɔap-al-ɔap	stacked here and there
ɔoc-ol-ɔoc	worn out, in pieces
c̃ha-al-c̃ha	weary, overworked
c̃hah-al-c̃hah	drop by drop
c̃hic-il-c̃hic	silent, hushed
c̃hul-ul-c̃hul	very wet, humid
eb-el-eb	stepped, uneven
ek-el-ek	completely black
em-el-em	downhill
et-el-et	from hand to hand
haɔ-al-haɔ	be whipped, wounded one after another
ham-al-han	chipped, notched, dented in many places
hat-al-hat	torn, ripped, split in many places
hel-el-hel	different, varying; alternatively, at times
het-el-het	split, cracked, broken, burst
hom-ol-hom	very rapidly
huth-ul-huth	narrow
yac-al-yac	somewhat, nearly, scarcely, hardly; from time to time
ik-il-ik	restless, anxious, uneasy, boisterous, lively, turbulent
kam-al-kam	hand to hand
kech-el-kech	twisting, deviating
lab-al-lab	slightly spoiled or damaged
laac-al-laac	so it is
lak-a(l)-lak	accompanied
lam-al-lam	distant, far away; very deep, high, large, wide, broad, or spacious
loch-o(l)-loch	bent, twisted
loth-ol-loth	very thin (bones)
mac-al-mac	divided into compartments (cells of friars, nests of bumblebees called <u>holon</u>)

Table 13-5. (cont'd) Reduplicated adjectives with -VL- infix in the Calepino de Motul.

Adjective	Gloss
man-al-man	far, distant, audible from a great distance
mec-el-mec	twisted, bent
mech-el-mech	twisted, bent
moc-ol-moc	knotty, full of knots
muk-ul-muk	long suffering
nath-al-nath	squeezed here and there
nipp-il-nipp	stony, full of stones
nup-ul-nup	opposing, hostile, resistant
oɔ-ol-oɔ	covered with wrinkles
opp-ol-opp	very ripe, mature; almost dried out from cooking
pac-al-pac	folded here and there
pac-al-pac	reciprocal
pak-al-pak	stuck, patched, mended, soldered here and there
pet-el-pet	round, circular
pot-ol-pot	perforated here and there
pul-ul-pul	excusing one another
ppit-il-ppit	persistent, insistent
ppuy-ul-ppuy	crumbled (bread, fruit)
tom-ol-tom	disorganized, incoherent
tʰoy-ol-tʰoy	hanging, dangling (plural)
uac-al-uac	extruded
vuɔ-ul-vuɔ	folded, bent, wrinkled
uɕh-ul-uɕh	frequently narrowed, constricted
uec-el-uec	spilled, scattered, shed here and there
uel-el-uel	striped with colors
xab-al-xab	thinned out (cabbages)
xay-al-xay	divided, separated, forked
xeth-el-xeth	torn, broken apart in several places
xoh-ol-xoh	damaged, rotten

- (30) CoC-eN-CoC Gloss
 hok-en-hok adjoining, linked, chained here and there
 loch-en-loch bent and unequal, twisted, crooked
 mol-en-mol piled here and there
 poɔ-en-poɔ very slippery, enmired
 tom-en-tom giddy, unsteady
 tʰol-en-tʰol furrowed
 xot-en-xot spotted, fragmented here and there

The examples in (31) document the use of -eN- with /u/-roots:

(31)	<u>CuC-eN-CuC</u>	<u>Gloss</u>
	tzuc-en-tzuc	divided in parts here and there
	čhuc-en-čhuc	spying, scouting here and there
	čhuy-en-čhuy	hanging, dangling here and there
	muo-en-muo	withered, wilted, faded
	much-en-much	withering, fading, decaying, curling, ruffling
	nup-en-nup	opposing, hostile, resistant
	ppul-en-ppul	wide, swollen
	pput-en-pput	mounded up here and there
	tuc-en-tuc	piled here and there
	tuə-en-tuə	long
	tħun-en-tħun	drop by drop, spattered

And the examples in (32) indicate that roots with the front vowel, /e/, co-occurred with -uN-:

(32)	<u>CeC-uN-CeC</u>	<u>Gloss</u>
	chek-un-chek	at every step, frequently
	čheh-un-čheh	drop by drop
	hel-un-hel	alternative
	ppel-un-ppel	scarcely, hardly, limited
	xeth-un-xeth	torn, broken apart in several places

On the other hand, roots with the mid-vowels, /a/ and /ə/, could co-occur with either -eN- or -uN-, as shown in (33) and (34):

(33)	<u>CaC-uN-CaC</u>	<u>Gloss</u>
	cal-um-cal	remote, thin, sparse
	čhah-un-čhah	drop by drop
	taz-un-taz	stacked one above the other (heavens)
	xach-un-xach	spaced out
(34)	<u>CaC-eN-CaC</u>	<u>Gloss</u>
	mac-en-mac	divided into compartments
	mal-e(m)-mal	intermittent

The only reduplicated stem based on a CiC root that co-occurred with one of these infixes was nic-en-nic 'heaped, piled up,' which is not an example of vowel disharmony.

There are, in addition, some examples of vowel copying in such reduplicated stems:

(35)	<u>CVC-VN-CVC</u>	<u>Gloss</u>
	muo-um-muo	withered, wilted, faded
	titz-im-titz	at each corner
	xay-am-xay	divided, separated, forked
	xel-em-xel	cut into many bits

And in three cases, there are alternative forms of the reduplicated stems, in which one of the infixes is -iN-:

(36)	<u>CVC-eN-CVC</u>	<u>CVC-iN-CVC</u>	<u>Gloss</u>
	čhuc-en-čhuc	čhuc-iN-čhuc	spying, scouting here and there
	mol-en-mol	mol-iN-mol	piled here and there
	—	tuy-iN-tuy	bearded, hairy

There are many examples of the same vowel co-occurrence restrictions with -eN- and -uN- in the Hocaba dictionary of Modern Yucatec. As in Colonial Yucatec, the 43 reduplicated participles based on CoC roots co-occur only with the -eN- infixes shown in the following examples:

(37)	<u>CóoC-eN-CóoC</u>	<u>Gloss</u>
	ʔóoč-en-ʔóoč	stooped here and there
	čóok'-en-čóok'	crammed here and there
	hóol-en-hóol	perforated here and there
	k'óop-en-k'óop	immersed here and there
	lóot'-en-lóot'	joined here and there
	móok-en-móok	knotted here and there
	šóol-en-šóol	kneeling here and there
	tóok-en-tóok	leaning here and there

So, also, do the 43 reduplicated participles based on CuC roots:

(38)	<u>CúuC-eN-CúuC</u>	<u>Gloss</u>
	b'úuh-em-b'úuh	split here and there
	čúul-en-čúul	blistered here and there
	húup'-en-húup'	pricked here and there
	k'úuy-en-k'úuy	twisted here and there
	múuč-en-múuč	grouped here and there
	p'úuy-en-p'úuy	snapped off here and there
	súul-en-súul	soaked here and there
	túup'-en-túup'	broken here and there

And, as in Colonial Yucatec, representative examples of the 39 reduplicated participles based on CeC roots co-occur only with the -uN- infix:

(39)	<u>CéeC-uN-CéeC</u>	<u>Gloss</u>
	ʔéeč-un-ʔéeč	slumped here and there
	b'éeč'-um-b'éeč'	sprawled here and there
	čéeH-un-čéeH	sticking out here and there
	héek-un-héek	mounted here and there
	k'éeč-un-k'éeč	tilted here and there
	méet-un-méet	arched here and there
	péet-um-péet	blemished here and there
	šéel-un-šéel	open here and there
	téep'-un-téep'	wrapped here and there

Although the reduplicated participles based on CaC roots have continued the pattern of co-occurring with either -eN- or -uN-, only three of the 48 examples of such participles in the Hocaba dictionary still co-occur with -uN-:

- | | | |
|------|---|---|
| (40) | <u>CáaC-uN-CáaC</u>
ǰ'áan-un-ǰ'áan
káač-un-káač
táak'-un-táak' | <u>Gloss</u>
lying down here and there
split here and there
stuck here and there |
|------|---|---|

The remaining 45 participles co-occur only with -eN-, as shown in the representative examples below:

- | | | |
|------|---|--|
| (41) | <u>CáaC-eN-CáaC</u>
ʔáak-en-ʔáak
čáaw-en-čáaw
k'áaš-en-k'áaš
máan-en-máan
páak-em-páak
táab'-en-táab'
wáah-en-wáah
yáal-en-yáal | <u>Gloss</u>
settled here and there
dangling here and there
tied here and there
passing here and there
leaning here and there
grafted here and there
sifted here and there
melted here and there |
|------|---|--|

Apparent cognates in the Hocaba dictionary of four reduplicated participles derived from CaC roots with -eN- or -uN- echo the shift from CaC-un-CaC to CaC-en-Cac participles over time:

- | | | | | |
|------|---|--|---|---|
| (42) | <u>Colonial</u>
<u>Yucatec</u>
čah-un-čah
mac-en-mac

taz-un-taz

xach-un-xach | <u>Gloss</u>
drop by drop
divided into
compartments
stacked one
above the other
spaced out | <u>Modern</u>
<u>Yucatec</u>
č'áah-en-č'áah
máak-en-máak

táas-en-táas

šáač-en-šáač | <u>Gloss</u>
dripping here and there
covered here and there

extending here and there

separated here and there (people
with legs apart) |
|------|---|--|---|---|

On the other hand, the reduplicated participles based on CiC roots seem to have become more disharmonic over time. Only nine reduplicated participles derived from such roots in the Hocaba dictionary co-occur with the -eN- infix:

- | | | |
|------|---|--|
| (43) | <u>CíiC-eN-CíiC</u>
číil-en-číil
híil-en-híil
níiš-en-níiš
píič'-en-píič'
p'íič-en-p'íič
šíil-en-šíil | <u>Gloss</u>
lying down here and there
lying here and there
tilted here and there
protruding here and there
positioned at edge here and there
uncovered here and there |
|------|---|--|

wíiç'-en-wíiç'	sprinkled here and there
wíis-en-wíis	grooved here and there
wíiš-en-wíiš	spattered with urine here and there (several objects)

Instead, 25 reduplicated participles based on such roots co-occur with the -uN- infix in the Hocaba dictionary, of which the following is a representative sample:

(44)	<u>CíiC-uN-CíiC</u>	<u>Gloss</u>
	číin-un-číin	bowed here and there
	k'íis-un-k'íis	swollen here and there
	líik'-un-líik'	raised here and there
	níič'-un-níič'	bared here and there (teeth)
	píiš-un-píiš	covered here and there
	šíil-un-šíil	bristling here and there
	t'íin-un-t'íin	extended here and there
	wíil-un-wíil	tied loosely here and there

They include the one example of a participle derived from a CiC root in the Calepino de Motul that has a cognate in the Hocaba dictionary, which now has a disharmonic infix:

(45)	<u>Colonial</u>		<u>Modern</u>	
	<u>Yucatec</u>	<u>Gloss</u>	<u>Yucatec</u>	<u>Gloss</u>
	nic-en-nic	heaped, piled up	níik-un-níik	piled here and there

2.2.3. REDUPLICATED PARTICIPLES MARKED BY -MAN-. The third infix that co-occurred with reduplicated participles in Colonial Yucatec was -maN-, of which there are 13 examples in the Calepino de Motul:

(46)	<u>CVC-maN-CVC</u>	<u>Gloss</u>
	cal-man-cal	pierced, perforated all over
	cop-man-cop	twisted, coiled
	çuo-man-çuo	thrown, stretched, spread out, extended (several objects)
	tzay-man-tzay	stuck together (several objects)
	chul-man-chul	very wet, humid
	kok-man-kok	piled up in no particular order
	kok-man-kok	often, frequently, quickly, rapidly
	loch-man-loch	twisted in multiple places (tree, board)
	lotħ-man-lotħ	shrunk, wrinkled (leather, parchment)
	mec-ma(n)-mec	twisted, bent
	oo-man-oo	wrinkling all over
	poɔ-man-poɔ	very slippery, enmired
	tħoy-man-tħoy	hanging, dangling (several objects)

They are also well represented in Modern Yucatec, with 40 examples in the Hocaba dictionary, of which the following are illustrative:

(47)	<u>CVVC-man-CVVC</u>	<u>Gloss</u>
	ʔúuč'-man-ʔúuč'	dented here and there (several objects)
	ǰ'íp-man-ǰ'íp	scraped here and there (several objects)
	č'éet-man-č'éet	twisted here and there (several objects)
	háač'-man-háač'	chewed here and there (several objects)
	kúul-man-kúul	one by one (dispersed)
	p'éel-man-p'éel	one by one (dispersed)
	p'íik-man-p'íik	joint by joint (of finger), floor by floor, vertebra by vertebra
	t'óol-man-t'óol	widely spaced (lines)

Nine of the 40 examples of reduplicated participles that co-occur with -maN- in the Hocaba dictionary have a close semantic relationship with numeral classifiers:

(48)	<u>Numeral Classifier</u>	<u>Gloss</u>	<u>CVVC-man-CVVC</u>	<u>Gloss</u>
	ǰ'ít	long, thin things	ǰ'ít-man-ǰ'ít	one by one
	káač	sliver, splinter	káač-man-káač	piece by piece
	kóoǰ	piece (of rope)	kóoǰ-man-kóoǰ	piece by piece
	kúul	plant	kúul-man-kúul	one by one (dispersed)
	p'éel	thing	p'éel-man-p'éel	one by one (dispersed)
	p'íik	joint (finger), addition, storey	p'íik-man-p'íik	joint by joint (finger), floor by floor, vertebra by vertebra
	šéet'	piece	šéet'-man-šéet'	piece by piece
	šóot'	chunk	šóot'-man-šóot'	chunk by chunk
	túul	animate (person, animal)	túul-man-túul	one by one (dispersed)

This relationship distinguishes them from semantically related reduplicated participles marked by -VN-:

(49)	<u>CVVC-man-CVVC</u>	<u>Gloss</u>	<u>CVVC-VN-CVVC</u>	<u>Gloss</u>
	káač-man-káač	piece by piece	káač-en-káač	fractured here and there (several objects)
	kóoǰ-man-kóoǰ	piece by piece	kóoǰ-en-kóoǰ	burst here and there (several objects)
	šóot'-man-šóot'	chunk by chunk	šóot'-en-šóot'	cut here and there (several objects)

The -maN- examples emphasize measurement, whereas the -VN- examples stress that more than one object has been affected by the action expressed by the participle.

However, there is no apparent difference in meaning when these two kinds of stems are based on other roots:

(50)	<u>CVVC-man-CVVC</u>	<u>CVVC-VN-CVVC</u>	<u>Gloss</u>
	ʔúuč'-man-ʔúuč'	ʔúuč'-en-ʔúuč'	dented here and there (several objects)
	sóop'-man-sóop'	sóop'-en-sóop'	piled here and there (hair on head)
	tíik-man-tíik	tíik-en-tíik	unravelling here and there (several objects)
	t'áal-man-t'áal	t'áal-en-t'áal	worn here and there (trails worn by ants)
	t'ées-man-t'ées	t'ées-un-t'ées	warped here and there (several objects)

wéek'-man-wéek'	wéek'-un-wéek'	smashed here and there (eggs, fruit on ground)
wóol-man-wóol	wóol-en-wóol	bulging here and there (several objects)

2.3. REDUPLICATED PARTICIPLES DERIVED FROM VERBAL ROOTS WITHOUT AFFIXES. The Calepino de Motul contains examples of reduplicated participles derived from both intransitive and transitive roots without either suffixes or infixes.

2.3.1. REDUPLICATED PARTICIPLES DERIVED FROM INTRANSITIVE ROOTS WITHOUT AFFIXES. Only three examples of reduplicated participles derived from intransitive roots without either suffixes or infixes are listed in the Calepino de Motul. One of them is completely reduplicated (cim-cim), and the others are only partially reduplicated (nu-mum, ta-tal):

(51)	Intransitive		Reduplicated	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	cim	die, expire, faint, be sick	cim-cim	dying
	num	pass	nu-num	roaming, roving
	tal	come, be about to	ta-tal	frequent, constant

The sample of reduplicated participles derived from intransitive roots without suffixes or infixes in Modern Yucatec is limited to a single example that is partially reduplicated: líʔi-líʔik' 'raised in several places' < líik' 'rise, ascend.'⁵

2.3.2. REDUPLICATED PARTICIPLES DERIVED FROM TRANSITIVE ROOTS WITHOUT AFFIXES. A much larger number of reduplicated participles derived from transitive roots without suffixes or infixes is listed in the Calepino de Motul. Five fully reduplicated participles of this kind appear below:

(52)	Transitive		Reduplicated	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	ɔon	shoot straight	ɔon-ɔon	somewhat straight
	hel	change, exchange, return, recompense	hel-hel	at times, alternatively
	ipp	crumble, chip, indent, notch	ipp-ipp	crumbled, chipped, notched, indented
	loch	twist, bend	loch-loch	twisted, bent like a bugle
	vuɔ	fold, bend, wrinkle	vuɔ-vuɔ	very wrinkled

Seven partially reduplicated participles based on transitive roots without suffixes or infixes appear in the Calepino de Motul:

(53)	Transitive		Reduplicated	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	cel	grind corn hurriedly and unevenly	ce-cel	unevenly ground, masticated
	cop	fold, bend, seize, twist /rope, cord, vine/	co-cop	arched, bent, folded
	ɔip	flay, skin, scrape	ɔi-ɔip	flayed, skinned, scraped, injured, wounded

het	split, crack, break, burst	he-het	split, broken in many places (ceramic objects)
nol	gnaw /bones/, eat by moving around in mouth /fruit with large seed/	no-nol	loose (stone)
tol	spin /rough thread/	to-tol	coarse (cloth)
xach	thin out	xa-xach	separated slightly

Of the more than 200 reduplicated participles without affixes derived from transitive roots in the Hocaba dictionary of Modern Yucatec, only those based on nasal-final roots are fully reduplicated:⁶

(54)	Transitive		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	č'am	bruise, dent, flatten	č'á?an-č'á?am	dented in several places
	č'an	bruise, dent, flatten	č'á?an-č'á?an	dented in several places
	č'in	throw, hurl	č'í?in-č'í?in	hit in several places
	k'em	twist	k'èen-k'em	twisted in several places
	k'em	twist	k'é?en-k'é?en	twisted in several places
	t'on	bend	t'ó?on-t'ón	bowed [avoiding people]

However, not all nasal-final stems of this kind are fully reduplicated in Modern Yucatec:

(55)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	he _n	demolish, tear down	he?e_-hé?en	torn down in several places
	le _m	insert, sink	lé?e_-lé?em	inserted in several places
	lo _m	puncture, stab	ló?o_-ló?om	punctured in several places

The Modern cognates of the fully reduplicated examples in (52) that did not end in a nasal, as well as the partially reduplicated examples in (53), are all partially reduplicated:

(56)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	č'ip	scrape, flay, skin	č'í?i-č'í?ip	scraped in several places
	het	split, break /tree, coconut, head/	hé?e-hé?et	split in several places
	loč	twist, bend	ló?o-ló?oč	windy (road)
	šač	separate, spread	šá?a-šá?ač	spread, separated in several places (teeth)
	wuč'	fold, bend	wú?u-wú?uč'	folded in several places

Note that the examples in (56) have infixes glottal stops, in addition to vowel length and tone (e.g., hé?e-hé?et), which is a general characteristic of such reduplicated participles in Modern Yucatec. The only exceptions are derived from transitive roots with long vowels and high tone, in which neither syllable has an infix glottal stop:

(57)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	č'íil	peel, skin, husk	č'íi-č'íil	peeled in several places
	č'úuy	raise, lift	č'úu-č'úuy	lifted in several places

Another exception is derived from a mediopassive stem: kée-kéel 'grainy' (< kéel 'to grind').

3. VERBAL REDUPLICATION

Verbal reduplication is limited to transitive stems in the Calepino de Motul. One kind is derived from transitive roots without suffixes or infixes. Another involves compounding such reduplicated stems with another transitive root or noun incorporation. And the third is derived by infixing -VI- or -VN- between the reduplicated elements.

3.1. VERBAL REDUPLICATION WITHOUT AFFIXES. This kind of reduplication is the verbal counterpart of the reduplicated participles described in **2.3.2.** above. Six examples of reduplicated transitive stems derived from transitive roots without suffixes or infixes appear in the Calepino de Motul, of which four are fully reduplicated:

(58)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	çij	give, make offering	çi-çi	offer quickly
	tzak	beat, strike	tzak-tzak	ring one after another
	čhin	throw, hurl /stones/	čhin-čhin	pelt with stones, oranges
	ye	threaten, pretend; show, present, offer	ye-ye	threaten, pretend; show, present, offer

The other two examples are only partially reduplicated:

(59)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	kat	ask, request, inquire, investigate, interrogate	ka-kat	want
	ppiz	measure, weigh	ppi-ppiz	threaten

Of the ca. 250 reduplicated transitive stems derived from transitive roots in the Hocaba dictionary of Modern Yucatec, only those with root-final nasals are fully reduplicated:

(60)	Transitive		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	č'on	shoot, hunt	č'óʔon-č'on	shoot several times
	č'am	bruise, dent, flatten	č'áʔan-č'am	dent several times
	č'an	bruise, dent, flatten	č'áʔan-č'an	dent several times
	č'in	throw, hurl	č'íʔin-č'in	throw several times
	t'on	bend	t'óʔon-t'on	bend several times

However, not all reduplicated transitive stems derived from nasal-final roots are fully reduplicated:

(61)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	č'an	compress, reduce	č'áʔa_-č'an	compress several times
	č'um	deflate, shrink	č'úʔu_-č'um	deflate, shrink
	čin	bend	číʔi_-čin	bend several times
	kum	overfill, brake, pull on reins, beat down	kúʔu_-kum	brake several times
	k'em	twist	k'éʔe_-k'em	twisted several times
	lem	insert, sink	léʔe_-lem	insert several times
	lom	puncture, stab	lóʔo_-lom	stab several times
	sin	stretch out, extend, tighten, spread out	síʔi_-sin	stretch several times

Other partially reduplicated transitive stems derived from CVC transitive roots behave in the same way in Modern Yucatec:

(62)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	ʔop'	burst, break into pieces	ʔóʔo-ʔop'	break several times
	č'eh	extinguish, break up coals	č'éʔe-č'eh	extinguish several times
	hit'	braid, weave	híʔi-hit'	braid several times
	kuč	carry on back	kúʔu-kuč	carry several times
	pot	perforate	póʔo-pot	perforate several times
	šač	separate, spread	šáʔa-šač	spread several times
	tak'	stick, adhere	táʔa-tak'	stick several times
	wuč'	fold, bend	wúʔu-wuč'	fold several times

The structure of these reduplicated transitive stems resembles the structure of the reduplicated participial stems in (56) with one exception, namely that only the first syllable in these stems has an infixed glottal stop, whereas both syllables in the reduplicated participial stems have infixed glottal stops (compare šáʔa-šač 'to spread several times' with šáʔa-šáʔač 'spread, separated in several places' and wúʔu-wuč' 'to fold, bend' with wúʔu-wúʔuč' 'folded in several places' in [56] and [62]).

The only exceptions to this pattern are reduplicated transitive stems that are derived from transitive roots with long vowels and rising or high tone, in which neither syllable has an infixed glottal stop (compare with [56]):

(63)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	č'úuy	raise, lift	č'úu-č'u-y	lift several times ⁷
	kóol	pull, tug	kóo-ko-l	pull, tug along several times
	líil	shake	líi-li-l	shake several times
	méek'	embrace /child, bundle, person/	mée-me-k'	embrace several times

túub'	spit at	túu-tu-b'	spit several times
t'óoh	strike, hit	t'óo-t'o-h	strike several times
t'úuy	lift /by strap on handle/	t'úu-t'u-y	lift several times

3.2. REDUPLICATED TRANSITIVE VERBS IN COMPOUND STEMS. Reduplicated verbs of the kind described in 3.1. above may also appear in transitive compounds, in which a reduplicated transitive stem is combined with a transitive root or noun. For example, the reduplicated verb, ppi-ppiz 'to threaten,' was combined with the transitive roots, bax 'to hammer,' čhin 'to hurl /stone/,' hač 'to whip,' and lah 'to slap,' yielding the following compounds in Colonial Yucatec (Ciudad Real 1600?: fol. 390v):

(64)	<u>Compound Stem</u>	<u>Gloss</u>
	ppi-ppiz= <u>bax</u> -t	threaten to hammer
	ppi-ppiz= <u>čhin</u> -t	threaten to hurl /stone/
	ppi-ppiz= <u>hač</u> -t	threaten to whip
	ppi-ppiz= <u>lah</u> -t	threaten to slap

Similar constructions can be found in the Hocaba dictionary of Modern Yucatec. For example, the transitive root, č'in 'to hurl,' co-occurs with reduplicated transitive stems derived from hul 'to thread /needle/,' nok 'to bend over,' tul 'to make overflow, gush,' and wek 'to spill, shed /coffee, water, gruel, oil/' (V. Bricker et al. 1998:84–85):

(65)	<u>Compound Stem</u>	<u>Gloss</u>
	húu-hu-l= <u>č'in</u> -t	thread suddenly several times
	nóo-no-k= <u>č'in</u> -t	turn face down suddenly one after another
	túu-tu-l= <u>č'in</u> -t	push several times
	wée-we-k= <u>č'in</u> -t	hurl one after another /buckets of water/

The transitive root, lah 'to slap, strike with flat side of two or three fingers,' when reduplicated, appeared in transitive expressions that incorporated the nouns, kab 'hand, arm, lower forearm, finger' and tan 'front, presence, breast,' in the Calepino de Motul (Ciudad Real 1600?: fol. 261v):

(66)	<u>Compound Stem</u>	<u>Gloss</u>
	la-lah= <u>kab</u> -t	knock, clap
	la-lah= <u>tan</u> -t	pat child so that he sleeps and is calm

In another construction of this kind, the noun, kab, appeared with the reduplicated form of bal 'to hide, cover, protect,' in ba-bal-kab-t 'to keep hiding in fist, stealing what can be carried in hands; keep concealing what one will say' (Ciudad Real 1600?: fol. 39r).

The Hocaba dialect of Modern Yucatec has cognates of both constructions with kab (Bricker et al. 1998:140):

(67)	<u>Compound Stem</u>	<u>Gloss</u>
	la-lah= <u>k'ab</u> '-t	applaud
	b'a-b'al= <u>k'áa</u> ?a-t	defraud, cheat, trick

(The final consonant in k'ab' has been reduced to a glottal stop in the second example in [67].)

Many other reduplicated transitive stems have k'ab' (pronounced as k'áʔa) as the incorporated noun in Modern Yucatec (V. Bricker et al 1998:140–142):

(68)	Transitive		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	b'it'	tighten, pinch	b'i-b'it'=k'áʔa-t	fondle
	ǵ'ip	eject, remove	ǵ'i-ǵ'ip=k'áʔa-t	slip out of one's hand
	ǵ'op	punch, bore, puncture	ǵ'o-ǵ'op=k'áʔa-t	insert finger several times /in dough/
	lom	puncture, stab	lo-lon=k'áʔa-t	poke several times; tickle
	mač	grasp, seize	ma-mač=k'áʔa-t	grasp again and again
	páan	excavate, dig	pam-pan=k'áʔa-t	paw several times
	peǵ'	pat, crush, smash, press, detain	pe-peǵ'=k'áʔa-t	feel around
	yot'	pinch, massage	yo-yot'=k'áʔa-t	pinch several times

3.3. VERBAL REDUPLICATION WITH INFIXES. The Calepino de Motul has two examples of verbal reduplication with infixes, one with -VI- and the other with -VN-. The first example is ɔʉt-ʉl-ɔʉt 'to hawk, peddle, haggle; barter, exchange' < ɔʉt 'to sell, hawk, haggle.' The other example is kex-un-kex 'to make a sham sale; go about trading' < kex 'to change, exchange, trade.' There are no examples of such verbal constructions in Modern Yucatec, nor, to my knowledge, in Itsaj, Mopan, or Lacandon.

4. NOMINAL REDUPLICATION

The Calepino de Motul contains a few examples of the reduplication of both monosyllabic and disyllabic nominal roots. The following monosyllabic roots are fully reduplicated:

(69)	Nominal		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	cil	beat, throb	cil-cil	throb, tremor
	ich	twin	ich-ich	twins, triplets, pair of fruits stuck together

So also are the following disyllabic roots:

(70)	Nominal		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	çacan	maize dough	çacan-çacan	substance similar to maize dough
	ɔacab	ancestry, lineage, generation	ɔacab-ɔacab	ancestry
	choocom	trinket, bauble, toy, knickknack, trifle, utensil	choocom- choocom	trinkets, baubles, toys, knickknacks, trifles, utensils [hawked by peddlers]

There is a sense in which the reduplicated forms semantically denote pluralization.

The only partially reduplicated nominal roots are monosyllabic:

(71)	Nominal		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	çuuz	sand, dust	çu-çuuz	sand
	haa	water, rain	ha-haal	heavy, continuous downpour; rainy season

There are even fewer examples of reduplicated nouns in the Hocaba dictionary of Modern Yucatec, and they are only partially reduplicated:

(72)	Nominal		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	b'áʔal	thing, contents	b'áʔa-b'áʔal	demon, monster
	b'óoš	lips	b'o-b'óoš	flank, ileum
	haʔ	water	háʔa-háʔal	summer [June, July, August, or rainy season]
	sóʔok'	underarm hair	sóʔo-sóʔok'	bagasse [short fiber residue of henequen]

The third example (háʔa-háʔal) is a cognate of the second example (ha-haal) in (71) above.

5. REDUPLICATED PARTICLES

Both monosyllabic and disyllabic particle roots have fully and/or partially reduplicated stems in the Calepino de Motul. There are also two examples of the use of the -VI- infix in reduplicated particle stems in the Calepino.

5.1. REDUPLICATED PARTICLE STEMS WITHOUT SUFFIXES. The fully reduplicated monosyllabic particle stems listed in the Calepino are:

(73)	Particle		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	cen	what, that which	cen-cen	more or less, about
	cuy	ay! [exclamation of pain]	cuy-cuy	hello! [expression of surprise]
	çam(e)	already, a while ago, a little after	çam-çam ⁸	a little while ago; sometime ago
	ix ma	without	ix ma-ma	without

The only partially reduplicated examples of monosyllabic particle roots are:

(74)	Particle		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	çeb	quickly, rapidly	çe-çeb	daily, every day
	hay	how many?	ha-hay	how many by how many?

Three disyllabic particles have related fully reduplicated stems:

(75)	Particle		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	amal	all the time; always; each one, every one	amal-amal	all the time, always; each one, every one
	bikin	when? when	bikin-bikin	once in a while, from time to time, now and then
	çamal	tomorrow, day before	çamal-çamal	every day

Two of these particles also have partially reduplicated stems:

(76)	Particle		Partial	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	bikin	when? when	bi-bikin	from time to time, once in a while, now and then
	çamal	tomorrow; day before	çam-çam	daily, every day

The full and partially reduplicated stems of these particles share the same meaning:

(77)	<u>CVC-CVC</u>	<u>CV-CVC</u>	<u>Gloss</u>
	bikin-bikin	bi-bikin	once in a while, from time to time, now and then
	çamal-çam	çam-çam	daily, every day

Cognates of two partially reduplicated particles in Colonial Yucatec appear in the Hocaba dictionary of Modern Yucatec:

(78)	Particle		Full	
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	hay	how many?	ha-hay	how many by how many?
	sáamal	tomorrow	sáan-samal	daily, every day

In addition, two reduplicated particles in Modern Yucatec appear only in compound stems, for example:

(79)	Particle		Compound	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	háan	quickly, right away	háa-ha-n=kóol-t	tug
	táah	very	ta-tah=č'in-t	hurl one after another

5.2. REDUPLICATED PARTICLE STEMS WITH INFIXES. Two monosyllabic particle roots have reduplicated stems with -VI- infixed between the repeated elements:

(80)	Particle		Compound	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	çam	already, a while ago, a little after	çam-al-çam	early tomorrow
	çeb	quickly, rapidly	çeb-el-çeb	very rapidly

6. REDUPLICATED NUMBER WORDS

Only three number words are reduplicated in the Calepino de Motul:

(81)	Number			
	<u>Root</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	hun	one	hun-hun	one by one; one each; one for each
	ca(a)	two	caa-ca	two by two; two each
	ho(o)	five	ho-ho	five by five; five each

They are usually combined with numeral classifiers, as in the following phrases:

(82)	Reduplicated	
	<u>Number</u>	<u>Gloss</u>
	hun-hun ppel	one by one, each one
	hun-hun tul	one by one, each one (men, women, angels)
	ca-caa thil	two by two; in pairs
	ho-ho haaben	older than five years

The earliest written evidence of the use of such reduplicated number words appears in the Crónica de Mani in 1557:⁹

- (83a) talob hun-hun tzuc ti cahobe
 'they came from each one of the towns' (MA557-057)
- (83b) ca utzac v chaicob ca-ca tul v chun v thanob t u pachob
 'they should each take two elders with them' (MA557-015A-C)

Terms for numbers like ho tu kal 'twenty-five' were reduplicated by repeating the word for the smaller of the two numbers, as in this sentence from a late eighteenth-century document:

- (84) yan u hoch-ciob ho-ho tu kal hun-hun tul tiob
 'they must rasp nenequen, twenty-five (leaves) per person
- t u rancho yn pixnal yum cura hol ek
 at the ranch of my spiritual father curate, Holek' (HB784A-016A-B)

Only the partially reduplicated number words based on hun 'one' and ká?ah 'two' are documented in the Hocaba dictionary of Modern Yucatec:

(85)	Reduplicated	
	<u>Number</u>	<u>Gloss</u>
	hu-hum p'éeel	one after another
	hu-hum p'éeelil	one by one
	ká?a-ka? p'éeelil	two by two
	hu-hum p'ítil	little by little
	hu-hum p'úulil	pitcher by pitcher
	hu-hun túulil	one by one

A contextual example of such a partially reduplicated number word appears below:

- (86) hu-hun ɟ'itil a b'isik le çeʔob'o?
'take those planks one by one!' (V. Bricker et al. 1998:53)

7. STEM REDUPLICATION

The distinction between root and stem reduplication is marked by the placement of derivational suffixes. In root reduplication, the derivational suffix occurs only at the end of the reduplicated stem, as in ɬem-ɬem-an 'calm, subdued,' the reduplicated stem derived from the participial stem, ɬem-an 'pacified, subdued,' whose root is ɬem 'to calm, pacify, subdue.' In stem reduplication, the participial suffix, as well as the root, are repeated, as in tzay-an=tzay-an 'one behind the other,' which is derived from tzay-an 'stuck, holding,' whose root is tzay 'to splice, join, tie together.' The Calepino de Motul contains the following additional examples of stem reduplication with the participial suffix, -a(a)n:

(87)	<u>Root</u>	<u>Participle</u>	<u>Stem Reduplication</u>
	bal 'hide, cover, protect'	bal-aan 'hidden, covered'	bal-an=bal-an 'going about hiding; keep hiding'
	bay 'straighten, stroke'	bay-an 'straight, aligned'	bay-an=bay-an 'clearly separated'
	cal 'taste (for beverages)'	cal-an 'drunk, intoxicated'	cal-an=cal-an 'half drunk'
	çeb 'quickly, rapidly'	çeb-an 'quickly, in haste'	çeb-an=çeb-an 'very quickly'
	cux 'alive'	cux-aan 'alive, living'	cux-an=cux-an 'half alive'
	eɔ 'fix, seat firmly'	eɔ-aan 'firm, fixed, seated firmly, erected'	eɔ-aan=eɔ-aan 'rather firm, fixed, seated firmly, erected'
	hel 'change, exchange, return, recompense'	hel-an 'changed, distorted, different, strange'	hel-an=hel-an 'different among themselves, slightly different'
	yah 'pain; sore, ulcer'	yah-aan 'hurt, wounded'	yah-an=yah-an 'indisposed, infirm, sickly, unhealthy'

Two other examples of stem reduplication involve the suffixes, -il and -tzil:

(88)	<u>Root</u>	<u>Derivation</u>	<u>Compound Reduplication</u>
	ich	ich-il	ich-il=ich-il
	'in, to, within'	'in, within, among'	'some'
	kin	kin-tzil	kin-tzil=kin-tzil
	'day, sun, time'	'time, hour'	'from time to time'

They contrast with the following examples of root reduplication that have -ul and -al as derivational suffixes:

(89)	<u>Simple</u>	<u>Gloss</u>	<u>Reduplication</u>	<u>Gloss</u>
	<u>Root</u>			
	čhuy	hang up, lift, carry	čhuy-čhuy-ul	hanging
		dangling		
	kin	day, sun, time	kin-kin-al ¹⁰	warm

Only one example of stem reduplication appears in the Hocaba dictionary of Modern Yucatec: hé?el-il=hé?el-il 'inching along, stopping and going' < hé?el 'to rest.' There is also a contextual example of this reduplication in the same source:

- (90) h wàane? hé?el-il=hé?el-il u tàal t u mèn k'as k'ohá?an
'John, he is inching along because he is very ill' (V. Bricker et al. 1998:102)

8. PHRASE REDUPLICATION

Reduplicated phrases may contain simple or compound expressions. In couplets, a syntactic frame is repeated, representing another kind of reduplicated phrase.

8.1. REDUPLICATED PHRASES COMPOSED OF SIMPLE AND COMPOUND EXPRESSIONS. The simplest reduplicated phrases in the Calepino de Motul involved the repetition of *yam* 'interval, distance, concavity between two things':

- (91a) yam v yam
'from time to time, at times (not always)' (Ciudad Real 1600?: fol. 215v)
- (91b) t u yam t u yam
'from interval to interval [i.e., among]' (Ciudad Real 1600?: fol. 214v)

In another kind of reduplicated phrase, the two instances of an adjectival or particle root are separated by the negative particle, *ma* 'no, not':

(92)	<u>Root</u>	<u>Gloss</u>	<u>Phrase</u>	<u>Gloss</u>
	bin	reportedly	bin <u>ma</u> bin	may or may not be
	hah	true	hah <u>ma</u> hah	true or false
	yan	exist, happen	yan <u>ma</u> yan	may not be so

The Calepino de Motul says that such phrases express doubt (Ciudad Real 1600?: fol. 277v) and illustrates their use with the following examples:

(93a) v kati bin benel cumkal bin ma bin
 'they say that the leader wants to go to Conkal, but he may not go' (Ciudad Real 1600?: fol. 278r)

(93b) chan a cante v pectzil batab hah ma hah lic v cantabal y okol
 'don't defame the leader; what is said could be true or false' (Ciudad Real 1600?: fol. 173r)

Other examples are based on the Maya roots, lic 'usually, customarily,' la 'this,' and toh 'true,' as well as the Spanish loan, domingo 'Sunday':

(93c) lic bin v hacic v chuplil Juan lic ma lic
 'they say that John whips his wife, but it may not be true' (Ciudad Real 1600?: fol. 278r)

(93d) la ma la
 'it may or may not be that' (Ciudad Real 1600?: fol. 278r)

(93e) toh ma toh au olex
 'you-all may or may not be well' (Ciudad Real 1600?: fol. 277v)

(93f) domingo ma domingo
 'it may be Sunday or not' (Ciudad Real 1600?: fol. 278r)

More common are examples of repeated compounds:

(94)	Compound	Gloss	Reduplicated Phrase	Gloss
	hun=tac	apart, aside, alone	hun=tac hun=tac	each one
	hun=ten	once	hun=ten hun=ten	many times
	—	—	hun=ye hun=ye	only once
	ppel=kin	all day long	ppel=kin ppel=kin	all day long
	ah yax=bak	moon-faced from illness	yax=bak yax=bak	sickly person
	bul=kin	all day long, from sunup to sundown	bul=kin bul=kin	many days from sunup to sundown
	he=ua	is it? by chance?	he=ua he=ua	any

The first four examples of phrase reduplication in (94) are based on numeral classifiers and have an adverbial function, as shown in context below:

(95a) hun=ten hun=ten v beeltic
 'many times he does it' (Ciudad Real 1600?: fol. 201v)

(95b) hun=ye hun=ye tzectabal yan v cux y ole
 'only once is the person who is wise reprimanded!' (Ciudad Real 1600?: fol. 198v)

- (95c) hun=tac hun=tac ti y ol
 'each one's condition is different' (Ciudad Real 1600?: fol. 201r)

The last two examples in (94) are illustrated below:

- (96a) bul=kin bul=kin v menyah Juan
 'many days from sunup to sundown does John work' (Ciudad Real 1600?: fol. 58r)
- (96b) cḥaex a ba a talelex a kam he=ua he=ua t u sacramentoil yglesia
 'prepare yourselves to come to receive any of the sacraments of the church!' (Ciudad Real 1600?: fol. 184r)

There are no contextual examples of *ppel=kin ppel=kin* and *yax=bak yax=bak* in the Calepino de Motul.

8.2. SEMANTIC AND SYNTACTIC PARALLELISM. Maya literature is well known for its use of parallel couplets, which are composed of pairs of lines that are semantically and often also syntactically parallel (Edmonson 1986:17–20; Hanks 1986:732). Some examples of such couplets in the Calepino de Motul are:

- (97a) *ma bay-kin çatom* 'it will never be wasted;
ma bay-kin çab-yom it will never be perishable' (Ciudad Real 1600?: fol. 279r)
- (97b) *kam u cah* 'he is serving in
y et-hun batab the house of the leader,
y et-hun çul the house of the Spaniard' (Ciudad Real 1600?: fol. 236v)
- (97c) *ca utzac ca çaic* 'we should give
v pacay=than a response,
v pacay=can an answer
ti ahau to the ruler' (Ciudad Real 1600?: fol. 354v)
- (97d) *hun=payil cah* 'a foreigner,
hun=payil vinic an upstart' (Ciudad Real 1600?: fol. 200r)
- (97e) *pacten t u xelex a çijl* 'look at me with a piece of your alms,
t u xelex a ça-yatzil with a piece of your charity!' (Ciudad Real 1600?: fol. 355r)
- (97f) *v chichil v muk* 'the strength of his muscles,
v chichil y oc the strength of his feet' (Ciudad Real 1600?: fol. 143r)
- (97g) *haçh au ex* 'tie your breeches!
haçh a pic tie your petticoat!' (Ciudad Real 1600?: fol. 171v)
- (97h) *hun=çut y utz* 'in one moment he is contented;
hun=çut lob in one moment he is discontented' (Ciudad Real 1600?: fol. 197v)

In each couplet, there is a constant element that is repeated and two variable elements that may be synonyms or antonyms. Thus, in (97a), the constant, or repeated element is the syntactic “frame,” *ma bay-kin ... -om* ‘it will never be ...,’ and the variable elements are *çat* ‘wasted’ and *çab* ‘perishable.’ Similarly, the syntactic frame in (97b) is *y et-hun*, which is loosely translated as ‘in the house of,’ and the variable elements are *batab* ‘leader’ and *cul* ‘Spaniard.’ In each example, the second line of the couplet restates the idea in the first line in a slightly different way. Thus, in (97b), the second line clarifies that the leader in whose house the service takes place is a Spaniard, not a Maya.

The variable elements in (97g) refer to the characteristic garments of men (ex ‘breeches’) and women (pic ‘petticoat’); therefore, the couplet as a whole implicitly serves as an admonition to the two sexes. It is also an example of a “kenning,” in which the variable elements imply a third idea: garments. The same is true of (97h), whose variable elements are antonyms (contented - discontented) that connote a third idea, namely that ‘he is irritable.’

Such semantic and syntactic couplets are common in the Books of Chilam Balam, which were the principal literary works in Colonial Yucatec. The Book of Chilam Balam of Tizimin contains several couplets with the variable elements, *che* ‘tree’ and *haban* ‘bush’ (and, in one case, also *ak* ‘vine,’ forming a triplet):

(98a) *sathom yalan che yalan haban*
 ‘they will be lost beneath the trees, beneath the bushes’ (Tizimin n.d.: fol. 11r)

(98b) *valachi v c̣ha tam ba ah ytza*
 ‘at that time of day, the Itzas seize each other

tan y ol che tan y ol haban
 among the trees, among the bushes’ (Tizimin n.d.: fol. 4r)

(98c) *ca çit u katunil bi[n]ci ah ytzaob*
 ‘for two parts of the katun, the Itzas went

yalan che yalan haban yalan ak ti num-yaob
 beneath the trees, beneath the bushes, beneath the vines in suffering (Tizimin n.d.: fol. 18v)

In these examples, *yalan che* ‘beneath the trees,’ *yalan haban* ‘beneath the bushes,’ and *yalan ak* ‘beneath the vines’ refer to the time spent by the Itza people in the wilderness. In the *Calepino de Motul*, the same pairing of *che* ‘tree’ with *haban* ‘bush’ occurs in a frame introduced by *u hel* ‘the replacement, substitute’ that refers to “payment, prize, reward”:

(99) *c̣ha ca ppelel tomin u hel che u hel haban tau oc la*
 ‘take these two silver coins as payment for your trouble!’ (Ciudad Real 1600?: fol. 181v)

Here, as in the Tizimin examples, the pairing of references to trees and bushes has a negative connotation, in one case referring to years spent in the wilderness, in the other to unspecified “trouble.”

Another set of terms that appears in multiple couplets in the Book of Chilam Balam of Tizimin, *pop* ‘mat’ and *çam* ‘throne,’ is of special interest because of its traceable roots in the Precolumbian past (V. Bricker and H. Bricker n.d.). These terms serve as a kenning for “rulership” in:

(100a) *t u men patah v cah t u kin t u çap tun*
 ‘because he waits for the day to pile up stones

t u kin u hel pop u hel ɔaam

for the day for replacing the mat, for replacing the throne' (Tizimin n.d.: fol. 3r)

(100b) ti u hoppol ah ca-kin ɔam ah ca-kin popi

'then begins the occupier of the two-day throne, the occupier of the two-day mat' (Tizimin n.d.: fol. 16v)

(100c) coɔbal v uich ah ca-kin pop ah ca-kin ɔam

'rolled up is the face of the occupier of the two-day mat, the two-day throne' (Tizimin n.d.: fol. 16v)

The couplets in (100b) and (100c) imply a temporary rulership, lasting only two days.

A rare example of such parallelism in a Colonial notarial document written in 1596 exhorts the owners of a tract of forest in the Puuc region never to sell or give it away to anyone outside the family:

(101)	a tialex t u lah a cuxtalex	'it is yours for all your lives
	y au al a mehenexob	and of your children;
	a tanlicex ca yumil ti dios	for you-all to serve our Lord who is God
	y ca noh ahau ah tepal	and our great king and ruler;
	<u>ma ix a conicex</u>	<u>neither sell it</u>
	<u>ma ix a siycex</u> lae	<u>nor give this away</u>
	ti u yanal uinic	to another person' (SB596C-302A-305)

In 1850 and 1851, the Talking Cross that served as the focus of worship among the rebel Maya during the Caste War of Yucatan often "spoke" in syntactic and semantic couplets:

(102)	bin yanac av ohetcexe	'know ye:
	<u>vuc ten inv ocol y kin</u>	<u>seven times I entered by day;</u>
	<u>vuc ten inv ocol y akab</u>	<u>seven times I entered at night</u>
	<u>y icnal in yum</u>	<u>in the presence of my Father</u>
	<u>y y icnal in colel</u>	<u>and in the presence of my Lady,</u>
	chahuc sullui santa maria	the sweet Virgin, Saint Mary' (V. Bricker 1981a:193, lines 222–228)

Couplets could also appear in riddles, as in these examples from the 1930s:

(103a) tun lolancile tun takanile

'it flowers when it ripens' (R. Redfield and Villa Rojas 1934:330)

(103b) tan ti chi tan ti ni

'equal in the mouth; equal in the nose' (M. Redfield 1935:40)

The answer to the riddle in (103a) is "horse excrement as it falls" (R. Redfield and Villa Rojas 1934:330), and the answer to the riddle in (103b) is "the breath" (M. Redfield 1935:40).

Other semantic and syntactic couplets from the late twentieth century include:

(104a) ti? le hé?elo? way b'àake? way ó?o?e?

'for that, here there are bones; here there is hair' (V. Bricker et al. 1998:24)

- (104b) miš č'óoč'i? miš č'uhki?
'it is neither salty nor sweet' (V. Bricker et al. 1998:185)
- (104c) tèeč pašik tèeč ʔóok'ostik
'it is you who play it; it is you who dance it! [said to someone who contradicts himself]' (V. Bricker et al. 1998:209)
- (104d) wač' aw èeš wač' a pìik
'loosen your pants; loosen your petticoat!' (V. Bricker et al. 1998:215)

The couplet in (104a) refers to the AIDS epidemic and can be paraphrased loosely as “there is no escape from this” (V. Bricker et al. 1998:24). The couplet in (104d) is recited several times while toasting the fruit of the *Enterolobium cyclocarpum* (Jacq.) Griseb. tree to encourage it to open (V. Bricker et al. 1998:215).

9. CONCLUSIONS

A variety of roots and stems in Colonial and Modern Yucatec have reduplicated forms: transitive and intransitive verbs, positionals, affects, nouns, adjectives, participles, number words, and particles. Reduplication is a device for signalling increased or diminished intensity in the contrast between full and partial forms (in Itsaj, for example) or that an action or a quality applies to more than one object in succession. Semantic and syntactic couplets mark peak events in historical and religious discourse (an exhortation to retain land ownership in a family, a sojourn in the wilderness during exile, a reign that lasted only two days, claims of visits to Heaven). They are also stylistic markers of riddles and aphorisms.

In summary, three reduplication patterns have been attested in Colonial and Modern Yucatec: full, partial, and full and partial. Full reduplication signals strong intensity, partial reduplication represents moderate intensity, and, in a few instances, reduplicated forms can be full or partial with no difference in meaning.

The semantic distinction between complete and partial reduplication was already fading during the late sixteenth century and survives today only in Itsaj.¹¹ Modern Yucatec retains the formal distinction in nasal-final and glottal-stop-final roots, but not the semantic distinction, suggesting that its loss was responsible for the decline in the number of fully reduplicated stems in the language over time.

NOTES

1. The variation in the vowels in cha-chan and chi-chan, both meaning ‘small, little,’ is evidence that the vowel in the prefix was originally schwa (cf. **2.3.3.** in Chapter 3 and V. Bricker and Orie 2014).
2. Itsaj also has chi-chan with the same meaning (Hofling and Tesucún 1997:192), indicating that the original schwa in the reduplicand was raised to [i].
3. Of course, p'aʔ-p'aʔ-nak is an example of full, not partial, reduplication.
4. Both the root and the reduplicand began with a glottal stop —(ʔ)e-(ʔ)em— that was not written.
5. This root is also a source of a reduplicated adjective with an infix: líik'-un-líik' ‘raised here and there (several objects).’
6. This is also true of the one nasal-final participle in Colonial Yucatec, but it takes an -áʔan suffix in Modern Yucatec: ʔ'óʔon-ʔ'on-áʔan ‘shot in several places’ (compare with the first example in [52]).

7. This example is identical to the reduplicated participial stem of čuy (compare with the second example in [57]).
8. The -e in çam(e) and çam-çame is a topicalizing enclitic (see Chapter 15).
9. The reduplicated form has two meanings, e.g., 'one by one' and 'each one.' The latter meaning is operative in (83a–b) and (84).
10. The cognate of kin-kin-al in Modern Yucatec is k'íin-k'in-al 'lukewarm, tepid' (V. Bricker et al. 1998:153).
11. And the preservation of this distinction in Itsaj implies that it separated from Proto-Yucatecan well before the late sixteenth century, when the Calepino de Motul was being compiled.

CHAPTER 14

PARTICLES

Particles resemble adjectives and nouns in the sense that they can be inflected as stative verbs with pronominal suffixes, but unlike nouns, they do not co-occur with clitic pronouns, and unlike adjectives, they do not modify nouns. Several kinds of function words belong to this category: adverbs, pronouns, interrogatives, conjunctions, prepositions, and expletives.

1. PARTICLE ROOTS

Colonial and Modern Yucatec have both monosyllabic and disyllabic particle roots. Many of the monosyllabic roots in Colonial Yucatec have cognates in Modern Yucatec:

(1)	Colonial <u>Particle</u>	<u>Gloss</u>	Modern <u>Particle</u>	<u>Gloss</u>
	bay	thus, as, like so, according to, since	b'èey	thus, so, like, since
	bin	reportedly, it is said, they say	b'in	reportedly, it is said
	cen	what, that which	kéen	where is it?
	çeb	quickly, rapidly	séeb'	quickly
	tza	sure, certain	çah	sure, certain
	hach	very	hač	very
	ma	no, not	ma?	no, not
	tac	until, from, since	tak	until, from
	tah	very	táah	very
	tec	immediately	téek	immediately
	ti	to, at, in, from, for	ti?	to, at, in, from, for
	uay	here	way ~ wey	here
	xan	also, too	šan	also, too
	xan	slowly	šaan	slowly

There are fewer disyllabic roots in Colonial Yucatec, of which a number have cognates in Modern Yucatec:

(2)	Colonial		Modern	
	<u>Particle</u>	<u>Gloss</u>	<u>Particle</u>	<u>Gloss</u>
	amal	all the time, always	ʔamat	all day, daily
	bahun	how many? why?	b'ahun	how many?, as many as
	chumuc	middle, center, equidistant between two extremes	čúumuk	middle, center
	napul	direct, directly	nàapul	direct, directly
	ppelech	scarcely, hardly, limited	p'eleč	scarcely, hardly, limited
	talam	severe, difficult, obscure, intricate, mysterious	talam	very

2. DERIVED PARTICLES

Interrogative stems represent the largest group of derived particles in both Colonial and Modern Yucatec. They were originally formed by suffixing -x (phonetic [š]) to the particle and nominal roots that served as relative pronouns:

(3)	Relative		Interrogative	
	<u>Pronoun</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	bal	thing, what	balx	what?
	bahun	as many as	bahunx	how many? how long? how much?
	bic	how, as, like	bicx	how?
	cen	what, that which	cenx	where is he or it?
	ceen	which is it?	ceenx	which is it?
	cuun	well? well then?	cunx	well? well then?
	mac	person, who	macx	who?
	tab(a)	where	tabx	where?

Four particle stems are derived from particle roots by suffixing -ac to the root:

(4)	Particle		Derived	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	çam	already, a while ago, a little after	çamac	sometime in the future
	hele	now, today	heleac	a while ago, today
	ool	almost, about to, on the verge, on the point of, almost like	olac	almost, about to, on the point of
	ual	today	ualac	at this time (of day); while, during, still

Of these derived particles, only *olac* has a cognate in Modern Yucatec (*?òolak* ‘almost, about to, on the verge of’), and *ualac* has left traces in the Hocaba dictionary in *walahkyaka?* and *walkila?*, both meaning ‘at this time [of day]’ (V. Bricker et al. 1998:17, 299).

Three particle stems are derived from particle roots by suffixing -*VI* to the root:

(5)	Particle		Derived	
	<u>Root</u>	<u>Gloss</u>	<u>Stem</u>	<u>Gloss</u>
	<i>bic</i>	how?, how, as, like	<i>bicil</i>	how
	<i>çam</i>	already, a while	<i>çamal</i>	tomorrow, day before
		ago, a little after		
	<i>ich</i>	in, to, within	<i>ichil</i>	in, within, among

The only cognates of these derived particles in Modern Yucatec are *sáamal* ‘tomorrow’ and *?ičil* ‘within’ (V. Bricker et al. 1998:19, 242).

3. ADVERBIAL PARTICLES

The adverbial particles in Colonial and Modern Yucatec include (1) temporal adverbs, (2) locative adverbs, and (3) manner adverbs.

3.1. TEMPORAL ADVERBS. The most obvious temporal adverbs in Colonial and Modern Yucatec are the aspectual particles and headwords that situate verbs in time:

(6)	Colonial	Modern	
	<u>Particle</u>	<u>Cognate</u>	<u>Aspect</u>
	<i>bin</i>	<i>b’iin</i>	remote future
	<i>çam</i>	<i>sáam</i>	anterior
	<i>lic</i>	<i>k</i>	incompletive, habitual
	<i>tan</i>	<i>táan</i>	durative
	<i>t(i)</i>	<i>t</i>	perfective
	<i>yan</i>	<i>yàan</i>	compulsive

They are described at length, and their functions are illustrated in example sentences in Chapter 5 and will therefore not be considered further here.

However, not all temporal adverbs serve as aspectual particles. One of them is *ual* (also spelled *ial* and *yual*) ‘today.’ The temporal adverbial particle, *ualac* ‘at this time [of day]; while, during, still,’ is derived from *ual*. Another temporal adverb is *çamal* ‘tomorrow,’ and still another is *amal* ‘all the time, always.’ Their function in Colonial Yucatec is illustrated in the following sentences:

(7a) *ma val ma-ix çamal ca paxal*
 ‘neither today nor tomorrow will we emigrate’ (Ciudad Real 1600?: fol. 440v)

(7b) *ma c ohel iual va çamal v kin ca lukebal vay y okol cabe*
 ‘we don’t know if today or tomorrow is the time for us to leave this world’ (Ciudad Real 1600?: fol. 227r)

- (7c) tab c eceb=cuch yuale
 'where will our resting place be today?' (Ciudad Real 1600?: fol. 162r)
- (7d) valacech ti cheltal valacech ti hautal
 'at this time [of day] you are still stretched out; at this time [of day] you are still face up' (Ciudad Real 1600?: fol. 440v)
- (7e) bai xan yum hoho tu kal hoch=ci c betic amal akab
 'thus also, Father, 25 henequen leaves are we rasping every night' (HB784-214B)

The particle, ualac, survives in Modern Yucatec in walahkyake? and walkila?, both meaning 'at this time [of day]'. Their function as temporal adverbs is illustrated below:

- (8a) hó?olhak walahkyaka? tí? yanen t inw otoče?
 'yesterday, at this time [of day], I was in my home' (V. Bricker et al. 1998:299)
- (8b) walkil sáamala? léeyli? wayaneče?
 'at this time tomorrow you will still be here' (V. Bricker et al. 1998:299)

The Modern cognates of çamal and amal are sáamal and ?amat, respectively, as in the following contextual examples:

- (9a) yan k tooł sáamal
 'we have to burn tomorrow' (Blair and Vermont-Salas 1965:92)
- (9b) ?amat k'ín b'ihá?an h wàan
 'John was gone all day' (V. Bricker et al. 1998:5)
- (9c) ?amat ?ok'ol
 'cry all the time' (V. Bricker et al. 1998:5)

3.2. LOCATIVE ADVERBS. The principal locative adverbs in Colonial and Modern Yucatec are:

(10)	Colonial Particle	Gloss	Modern Cognate	Gloss
	te	there, over there	te?	here
	tij	there	tí?i?	there
	tolo	there, yonder	tolo?	out there
	uay	here	way	here

Some examples of their use in Colonial Yucatec appear below:

- (11a) te v benel cumkale
 'there he goes to Conkal' (Ciudad Real 1600?: fol. 415r)
- (11b) tij yan ti y otoch ku
 'there he is in church' (Ciudad Real 1600?: fol. 418v)

- (11c) tolo a ɔaɪc
'place it out there!' (Ciudad Real 1600?: fol. 426r)
- (11d) vay a malel t a vaçak
'here you will pass on your return' (Ciudad Real 1600?: fol. 439r)

Their cognates in Modern Yucatec appear in similar contexts:

- (12a) teʔ a ʔ'áikaʔ
'place it here!' (V. Bricker et al. 1998:272)
- (12b) tíʔ t kanahiʔ
'we learned it there' (Blair and Vermont-Salas 1965:52)
- (12c) b'is toloʔ
'take it out there!' (V. Bricker et al. 1998:272)
- (12d) way t uy ilaheʔ
'he saw it here' (V. Bricker et al. 1998:301)

The terminal deictic particles, aʔ, eʔ, iʔ, and oʔ, in these examples are discussed in Chapter 15.

3.3. MANNER ADVERBS. The following particles serve as manner adverbs in Colonial Yucatec, of which five have cognates in the Hocaba dialect of Modern Yucatec:

(13)	Colonial Particle	Modern Cognate	Gloss
	bay	b'èey	thus, as, like, so
	bicil	—	how
	tza	ʔah	sure, certain
	çeb	séeb'	quickly
	tac	—	quickly
	tec	téek	immediately
	xan	šàan	slowly

The Calepino de Motul illustrates the use of six of these adverbs in sentences:

- (14a) bay v mal booy bay v mal muyal cuxtale
'this is how life passes: like shade, like clouds' (Ciudad Real 1600?: fol. 41v)
- (14b) utzcin bay bin au alicé
'do as you say!' (Ciudad Real 1600?: fol. 41v)
- (14c) alcabnen tac
'run quickly!' (Ciudad Real 1600?: fol. 397v)

- (14d) tza pay v cah ten
'he calls me importunately' (Ciudad Real 1600?: fol. 113v)
- (14e) mankeçex ten bicil a cahex
'tell me quickly how you-all are!' (Ciudad Real 1600?: fol. 298r)
- (14f) xan v tal çac nal çeb v tal mehen nal
'white corn comes slowly; small corn comes quickly' (Ciudad Real 1600?: fol. 406r)

The Hocaba dictionary illustrates the use of four of the five cognates in Modern Yucatec:

- (15a) h wàane? séeb' u t'àan
'as for John, he speaks rapidly [i.e., he is popular]' (V. Bricker et al. 1998:243)
- (15b) h wàane? šàan u meyah
'as for John, he works slowly' (V. Bricker et al. 1998:254)
- (15c) çah im b'in
'I am definitely going' (V. Bricker et al. 1998:40)
- (15d) má? a téek hanal
'don't eat right away!' (V. Bricker et al. 1998:273)

4. INTERROGATIVE PARTICLES

The clitic particle *ua* (phonetic [wáah]) has an interrogative function in both Colonial and Modern Yucatec. The most common placement of this interrogative particle was after the first word in a sentence in Colonial Yucatec:

- (16a) bin ua likic au ol a chucub Juan
'will you venture forth to capture John?' (Ciudad Real 1600?: fol. 269r)
- (16b) yan va a nupintic a yum
'have you contradicted your father?' (Ciudad Real 1600?: fol. 338r)
- (16c) av vbah va v pectzil ah ocolob
'did you hear the news about the thieves?' (Ciudad Real 1600?: fol. 371r)

The same is true in Modern Yucatec:

- (17a) aw ?òohel wáah meyah
'do you know how to work?' (V. Bricker et al. 1998:298)
- (17b) aw ííç'nó?ob' wá letí?ob'
'are they your brothers?' (Blair and Vermont-Salas 1965:17)

- (17c) yàan wáah a t'òošil le k'ín k'àab'a?o?
'will there be a distribution [of food] at that birthday?' (V. Bricker et al. 1998:293)

Another clitic particle with an interrogative function that followed the initial word in sentences was *xin* in Colonial Yucatec:

- (18a) v ɔij xin au ol hanal
'do you wish to eat?' (Ciudad Real 1600?: fol. 131r)
- (18b) valac xin a beeltic lo
'are you accustomed to do that?' (Ciudad Real 1600?: fol. 440v)
- (18c) t a potah xin cum in kubentah tech
'did you make the pot that I ordered from you?' (Ciudad Real 1600?: fol. 381r)

Both *ua* and *xin* co-occurred in some questions in Colonial Yucatec:

- (19a) tech ua ah benel cumkal a yum xin
'are you the one who will go to Conkal, or is it your father?' (Ciudad Real 1600?: fol. 459v)
- (19b) tech ua haɔi in mehen Pedro xin
'did you whip my son or Peter?' (Ciudad Real 1600?: fol. 436v)
- (19c) macx yam huli tech ua Pedro xin
'who came first, you or Peter?' (Ciudad Real 1600?: fol. 214r)

The placement of *ua* and *xin* immediately after *tech* 'you' and Pedro 'Peter' in (19b) indicates that they were both agents of whipping and that in *mehen* 'my son' was the only patient mentioned in that question.

There is no evidence of the use of *xin* as a clitic particle in the Hocaba dialect of Modern Yucatec.

As explained in 2. above, interrogative pronouns are particles derived from nominal and particle roots serving as relative pronouns. They introduce questions, contrasting in this respect with *ua/wáah* and *xin*, which serve as interrogative particles only if they follow the first word in the sentence or phrase. Examples of the use of interrogative pronouns in questions in Colonial Yucatec can be found in (34a–i) in Chapter 4. Cognates of some of these interrogatives in Modern Yucatec are illustrated below:

- (20a) b'iš aw óol k in kon teč
'how can you think that I am going to sell it to you?' (V. Bricker et al. 1998:33)
- (20b) b'á?aš=k'ín a b'in ho?
'when are you going to Merida?' (V. Bricker et al. 1998:27)
- (20c) máaš le máako?
'who is that man?' (Blair and Vermont-Salas 1965:20)
- (20d) tú?uš k a b'in
'where are you going?' (Blair and Vermont-Salas 1965:3)

- (20e) túʔuʃ a tàaléʔeʃ
 ‘where do you-all come from?’ (Blair and Vermont-Salas 1965:19)

Not all questions in Modern Yucatec have interrogative particles, either at the beginning of the sentence or elsewhere. Those that do not have an interrogative particle end in an “extra-high rising intonational contour,” whereas those that do have an interrogative particle anywhere in a question end in a level or falling countour (Blair and Vermont-Salas 1965:162). Information on intonation patterns regarding questions is not part of the historical record for Colonial Yucatec.

5. NEGATIVE PARTICLES

Colonial Yucatec had four negative particles, one with a general meaning and the others with a more limited imperative meaning.

The general-purpose negative particle was *ma* ‘no, not.’ It appeared in a variety of contexts, as shown below:

- (21a) ma v chainah vol luum vaye
 ‘this land here does not satisfy me’ (Ciudad Real 1600?: fol. 136r)
- (21b) ma chuucaani
 ‘it is not complete [i.e., part of it is missing]’ (Ciudad Real 1600?: fol. 147r)
- (21c) bax v chun a tatic a ne ma a tuculi
 ‘why do you butt into what is not your business?’ (Ciudad Real 1600?: fol. 400v)
- (21d) ma in botahi
 ‘I did not pay them [and don’t plan to]’ (Ciudad Real 1600?: fol. 277r)
- (21e) ma in bote in ppax
 ‘I have not paid my debts [but will pay them in the future]’ (Ciudad Real 1600?: fol. 277v)
- (21f) ma a benel mehene ti ma tan au alab ten
 ‘don’t go son without telling me!’ (Ciudad Real 1600?: fol. 423r)
- (21g) ma ten v tal ix ma nib=pixanil
 ‘it is not my way to be ungrateful [literally, without gratitude]’ (Ciudad Real 1600?: fol. 406r)
- (21h) ma-ix a conicex
 ‘and you-all will not sell it,
ma-ix a siycex lae ti u yanal uinic
nor will you-all offer this to another person’ (SB596C-303-305)

The first instance of *ma* in (21f) serves as the negative imperative, “don’t!,” and the second is part of a *ti ma* ‘without’ phrase. The second instance of *ma* in (21g) is part of an *ix ma* ‘without, perhaps not’ phrase.

The two instances of *ma-ix* in (21h) can be glossed as ‘neither ... nor.’ The partitive function of the terminal deictic particle, *i* (phonetic [iʔ]), in (21b–d) is described in Chapter 15.

The second negative particle, *chan*, is translated as ‘don’t!’:

- (22a) *chan* a baite v pol batab
‘don’t flatter the leader!’ (Ciudad Real 1600?: fol. 42v)
- (22b) *chan* ti pacat=pacat
‘don’t look here and there! [i.e., look straight ahead!]’ (Ciudad Real 1600?: fol. 355v)
- (22c) va a ualkeçah a ba ti Diose *chan* a pact a pach
‘if you convert yourself to God, don’t relapse into sin!’ (Ciudad Real 1600?: fol. 355v)

However, when *chan* follows *ma*, the double negative has a modal rather than an imperative quality:

- (23a) *ma chan* in bool y etel in tem t in yum
‘I do not pay nor satisfy my father as much as I should’ (Ciudad Real 1600?: fol. 416r)
- (23b) *ma chan* tzac y oc
‘it is not possible to satisfy him’ (Ciudad Real 1600?: fol. 114r)

The third negative particle, *baci* ‘not, stop!’, had a more consistent imperative function than *chan*:

- (24a) *baci* lo
‘that’s enough! no more!’ (Ciudad Real 1600?: fol. 40r)
- (24b) *baci* au eo t in ximbal
‘don’t imitate the way I walk!’ (Ciudad Real 1600?: fol. 161v)
- (24c) *baci* a mech a kab
‘stop groping around!’ (Ciudad Real 1600?: fol. 303r)
- (24d) *baci* a pec=olal ten, teni lo
‘do not doubt that I am who I am!’ (Ciudad Real 1600?: fol. 371r)

The fourth negative particle was *hik* ‘if not; why not?’, which is described as a cautionary particle followed by a verb inflected for the future (Ciudad Real 1600?: fol. 186r):

- (25a) *hik* çaçap huluçex
‘if you don’t negotiate something beforehand, you will go in vain’ (Ciudad Real 1600?: fol. 95r)
- (25b) *chan* ti baxal *hik* in ɔaab a haz
‘stop playing! if not, I will punish you’ (Ciudad Real 1600?: fol. 125r)
- (25c) *hik* lubucech
‘take care not to fall!’ (Ciudad Real 1600?: fol. 186r)

Of the four negative particles in Colonial Yucatec, only *ma* (phonetic [máʔ]) is attested in the Hocaba dialect of Modern Yucatec:

- (26a) *máʔ* in *k'áatiʔ*
 'I don't want it' (V. Bricker et al. 1998:176)
- (26b) *máʔa t uy áʔalah ʔuʔ t uy ičiʔ*
 'he didn't say that he liked it' (V. Bricker et al. 1998:176)
- (26c) *máʔa t u b'in*
 'he's not going' (V. Bricker et al. 1998:176)
- (26d) *mix máak u nah u meyah š máʔ b'óʔolil*
 'no one should work without pay' (V. Bricker et al. 1998:176)

Here, as in Colonial Yucatec, *máʔ* can introduce a deictic frame with the partitive enclitic, *iʔ*. The Colonial form of *miš* 'neither, nor, not even' in (26d) was *ma-ix* (21h), and *š máʔ* 'without' was *ix ma* in Colonial times (21g).

6. CONJUNCTIVE PARTICLES

Colonial Yucatec had one multi-purpose conjunction and two conjunctions with more specialized functions.

The multipurpose conjunction was *ca*, with a variety of meanings, depending on context: 'and, that; so that; provided, assuming that, so long as; if, when' (Ciudad Real 1600?: fol. 58v-59r). They are illustrated in the following examples:

- (27a) *bini ti y otoch ca u cimçah v çhuplil*
 'he went to his home and killed his wife' (Ciudad Real 1600?: fol. 58v)
- (27b) *in botah in ppax ca huli Pedro*
 'I paid my debts when Peter came' (Ciudad Real 1600?: fol. 58v)
- (27c) *bin in bote in ppax ca bin tacech*
 'I will pay my debts when you come' (Ciudad Real 1600?: fol. 58v)
- (27d) *hal ti Ju.º ca tac vaye*
 'tell John that he should come here!' (Ciudad Real 1600?: fol. 59r)
- (27e) *lay in kati ca a çhab a cux=oolal la*
 'this is what I want: that you should be discreet' (Ciudad Real 1600?: fol. 59r)
- (27f) *çukinte quaresma ca pay=numac a nahal*
 'fast during Lent so that we are worthy of your merits!' (Ciudad Real 1600?: fol. 59r)
- (27g) *ca uil bacac be*
 'provided that it will be like this' (Ciudad Real 1600?: fol. 59r)

- (27h) hi xijcen campeche ca yanac in tzimin
 'I will go to Campeche if I have a horse' (Ciudad Real 1600?: fol. 59r)

The clitic particle, ix 'and,' often follows another particle in a sentence or phrase. When it co-occurs with ca, the meaning of ca changes from 'and' to 'then':

- (28a) puci Juan ca-ix bini ti kax
 'John fled and then went into the woods' (Ciudad Real 1600?: fol. 62v)
- (28b) ca-ix y et=tñaniltah v ba tan baob
 'and then they spoke to each other' (Ciudad Real 1600?: fol. 169v)
- (28c) hah-i-hah v hual in cimil ca-ix lecec xan hah-i-hah
 'my illness stopped suddenly, and then it returned suddenly too' (Ciudad Real 1600?: fol. 172v)

And the concatenation of ix 'and' with the negative particle, ma 'no, not,' results in another compound conjunction, ma-ix 'and not, neither, nor,' as in:

- (29a) ma-ix mac bin luksic ten t u menel in matan ti mam Diego Us
 'and no one is going to take it from me, because it is my gift from (my) grandfather, Diego Us' (OX683-013A-C)
- (29b) ma-ix v conma xani
 'nor has he sold it either' (MA733F-620)

By 1777, ma-ix had been reduced to mix in the Puuc region of Yucatan:

- (29c) mix hun ppe l v tñan helan
 'and not one of the words is different' (PS777-004A)

The ma-ix conjunction also appeared in correlative constructions with ma in Colonial Yucatec:

- (30a) ma a benel ma-ix v benel a yum
 'you won't go, nor will your father go!' (Ciudad Real 1600?: fol. 289r)
- (30b) ma la ma-ix la
 'it is not this nor that' (Ciudad Real 1600?: fol. 289r)
- (30c) ma te la ma-ix te lo
 'it is neither here nor there' (Ciudad Real 1600?: fol. 289r)
- (30d) ma che v hel che ma-ix tunich v hel tunich
 'it will not be a stick for a stick, nor a stone for a stone! [i.e., evil should not be returned with evil]' (Ciudad Real 1600?: fol. 181v)
- (30e) ma tac Juan ma-ix tac v mehen xan
 'John has not come, nor has his son either' (Ciudad Real 1600?: fol. 455r)

See also the example in (7a) above.

The particle, *ua*, served as a conjunction meaning ‘if’ when it appeared at the beginning of a phrase:

- (31a) *va* cij y ol in paalil hach çak=ol t u menyah
‘if my servant is healthy, he is very diligent in his work’ (Ciudad Real 1600?: fol. 73v)
- (31b) *va* a kati batabile a nah a pak=tumte v cuch batabe
‘if you want to be a leader, you must consider the obligation of a leader’ (Ciudad Real 1600?: fol. 240r)
- (31c) ma taach v lamal ah pak *va* ma v pik=hoohtabal
‘the plant is not normally lost if it is not pulled out from the roots’ (Ciudad Real 1600?: fol. 262r)

Like *ca* ‘and’ and *ma* ‘no, not,’ *ua* ‘if’ could co-occur with the clitic particle, *ix* ‘and,’ in both independent and correlative phrases, where *ua-ix* meant ‘either, or’:

- (32a) in kati valab in tñan v kebanma vol v kebanma in tucul
‘I mean that I am restless
- t in hanal t in venel *va-ix* t in ximbal
when I eat, when I sleep, or when I walk’ (Ciudad Real 1600?: fol. 243v)
- (32b) vchom-ix y okol uah *va-ix* y okol haa
‘and it will happen over bread or over water’ (Tizimin n.d.: fol. 6r)
- (32c) *va* ah xolte takin bin u juesilte
‘either the bearer of the gold staff shall judge,
- va-ix* çac cib bin u kexinte xane
or the white candles that they will exchange too’ (Gordon 1913:64-65)
- (32d) ah cimilon-ix tac lalac ti ma c ohel *va-ix* taba *va-ix* bici
‘and we are all destined to die without knowing either where or how’ (TK679A-005A-C)

The clitic particle, *ix*, could also be attached to aspectual particles such as *lic* (incompletive), *ti* (completive), and *ɔoc* (terminative) in Colonial Yucatec:

- (33a) *lic-ix* ca ɔibtic ca kaba ocsabebal v hahil lae
‘and we write our names that this might be the truth’ (OX650-038A-C)
- (33b) *ɔoc-ix* c ilic v hahil v ppictunil
‘and we finished seeing the true boundary stone
- ɔaanil t u men jues y justicia uchie
placed by the judge and the justices long ago’ (YT718B-135A-136B)
- (33c) *t(i)-ix* culhi v ppictunil t u chun yx kan=kilis che
‘and the marker rested at the base of the *Acacia farnesiana* tree’ (OX595-027A-B)

Deictic particles also provided a context for ix:

- (34a) he-(i)x ca culhi na ɔul pox lae v ɔahob v chicul pachob xan
 ‘and when this Na Dzul Pox resided here, they placed the markers of the territory also’
 (DZ569-035A-036B)
- (34b) lay-ix ɕhabi uchci u patal Adan xane
 ‘and this was created after Adam was formed also’ (Gordon 1913:58)
- (34c) lay-ix v chun cimil toon xan
 ‘and this was the cause of our sickness’ (Gordon 1913:20)

When the preposition, ti ‘to, at, in, from, for,’ was combined with ix and followed by the reduplicated stem of ma ‘no, not,’ the new meaning was ‘without’:

- (35) ma tab a cimez ceh t(i)-ix ma-ma halalil
 ‘it is not possible for you to kill a deer without arrows’ (Ciudad Real 1600?: fol. 299r)

And ix could also appear immediately after inflected verb stems in Colonial Yucatec:

- (36a) ti yalah-ix v hahil v tʰan Pedro Cot lae
 ‘and he confirmed the truth of the words of this Pedro Cot’ (DZ624-010A-B)
- (36b) talon-ix t u cahal ca cilich colebil Ansumssion Ppustunich t u prouissias Ticul
 ‘and we came from the town of our holy lady Assumption Ppustunich in the province of Ticul’
 (PS740B-103A-E)

Of the three particles that served as conjunctions in Colonial Yucatec, only ca (phonetic [káʔah]) and ua (phonetic [wáah]) are in general use in Modern Yucatec:

- (37a) le káʔah bʼineʔ táan in wenel
 ‘when he left, I was sleeping’ (V. Bricker et al. 1998:121)
- (37b) čéen ʔičil t u bʼineʔ káʔah t uy ilah hun túul wakaš
 ‘it was only while he was going that he saw a cow’ (V. Bricker et al. 1998:121)
- (37c) kóʔoš ʔilik máaš kúh bʼisik le š čʼúpal ʔičilóʔonoʔ
 ‘let’s see which one of us will take that girl,
wáah tèn wáah tèeč
either you or I!’ (V. Bricker et al. 1998:298)

The clitic particle, ix, survives only in miš, the abbreviated form of ma-ix:

- (37d) miš tʼàan
 ‘say no more!’ (V. Bricker et al. 1998:185)

- (37e) miš tèen miš tèeč
 ‘neither I nor you’ (V. Bricker et al. 1998:185)

7. PREPOSITIONAL PARTICLES

Both Colonial and Modern Yucatec have only four prepositions: *ti* (phonetic [tiʔ]) ‘to, at, in, from, for,’ *ich* (phonetic [ʔič]) ‘in, to, within,’ *ichil* (phonetic [ʔičil]) ‘in, within, among,’ and *tac* (phonetic [tak]) ‘until, from, since.’ These are not the only words in the language with a prepositional function; the others are formally relational nouns, which are described in 2.5. in Chapter 8.

The particle, *ti*, is a multi-purpose preposition, covering a wide range of meanings, as shown in the following examples in the Calepino de Motul:

- (38a) in haaz=nupptah num=ya ti be
 ‘I encountered problems on the road’ (Ciudad Real 1600?: fol. 203r)
- (38b) in kamah v yaah ti in yum
 ‘I contracted the illness from my father’ (Ciudad Real 1600?: fol. 237v)
- (38c) yaab v çahal paalalob ti balam
 ‘children have a great fear of jaguars’ (Ciudad Real 1600?: fol. 95r)
- (38d) xethan y ol ti cuxtal
 ‘he doesn’t care for life’ (Ciudad Real 1600?: fol. 457r)
- (38e) pec=oltzil a ximbal ti akbil
 ‘it is dangerous for you to walk at night’ (Ciudad Real 1600?: fol. 371r)

A similar range of meanings characterizes *tíʔ* in Modern Yucatec:

- (39a) t ʔáʔalah tíʔ h wàan
 ‘we said it to John’ (V. Bricker et al. 1998:274)
- (39b) ç’óʔok u máan inw óol tíʔ le hanala?
 ‘I am already bored with this food’ (V. Bricker et al. 1998:18)
- (39c) le šíʔipaloʔ táan u čak’ik uy ič tíʔ in kùik
 ‘that boy is winking at my sister’ (V. Bricker et al. 1998:62)
- (39d) k in meyah tíʔ h wàan
 ‘I work for John’ (V. Bricker et al. 1998:183)
- (39e) máaš híçʔt e púuçʔ tíʔ e nòok’a?
 ‘who pulled the needle from this cloth?’ (V. Bricker et al. 1998:105)

The preposition, *ichil*, is clearly derived from *ich*, with which it shared several meanings in Colonial Yucatec: ‘in, within.’ According to the *Calepino de Motul* (Ciudad Real 1600?: fol. 223r), *ich* was used when the word for the place to which it referred was not inflected for possession:

- (40a) *tii yan ich na*
 ‘there he is in the house’ (Ciudad Real 1600?: fol. 223r)
- (40b) *bin ich col*
 ‘he went into the field’ (Ciudad Real 1600?: fol. 223r)
- (40c) *kinam in yum ich cah*
 ‘my father is revered in the town’ (Ciudad Real 1600?: fol. 247v)
- (40d) *çuubulte a ba ich haa*
 ‘keep submerging yourself in water!’ (Ciudad Real 1600?: fol. 108v)

However, when the word for the place in question was inflected for possession, *ichil* was the preposition of choice:

- (40e) *bini ichil v col*
 ‘he went into his field’ (Ciudad Real 1600?: fol. 223r)
- (40f) *culaan ychil y otoch*
 ‘he is inside his house’ (Ciudad Real 1600?: fol. 223r)
- (40g) *te yan ichil y otoch ku*
 it is here inside the church [literally, God’s house]’ (Ciudad Real 1600?: fol. 224r)

Although both *ʔič* and *ʔičil* are still evident in Modern Yucatec, *ʔičil* is no longer limited to contexts where it introduces words for places that have been inflected for possession:

- (41a) *le šíʔipaloʔ téʔe hupukb’al ʔičil le ʔišíʔimoʔ*
 ‘that boy there is hidden in the corn [in a pile already dried and picked]’ (V. Bricker et al. 1998:116)
- (41b) *póomeč ʔičil in tyáʔaliʔ*
 ‘you invaded mine’ (V. Bricker et al. 1998:220)

On the other hand, *ʔič* still seems to introduce phrases containing words for places that have not been inflected for possession:

- (41c) *táan u čan meyah ʔič kòol*
 ‘he’s working a bit in the milpa’ (Blair and Vermont-Salas 1965:89)
- (41d) *tèep’ u k’àaneʔ káʔah lúub’ u tèep’ ʔič haʔ*
 ‘the rope broke, and his blanket fell in the water’ (V. Bricker et al. 1998:274)

- (41e) pwes tó?one? ʔič ʔé?e'ek k'in k hóok'ol
'well, as for us, we leave in a few days' (Blair and Vermont-Salas 1965:282)
- (41f) k u páahtal u k'učul ʔič ká?ah p'é ʔòorah šímb'alil
'you can get there in two hours by walking' (Blair and Vermont-Salas 1965:276)

The prepositional particle, *tac*, could introduce both temporal and locative phrases in Colonial Yucatec:

- (42a) uchi tac yan ylabil t in menel
'it has been days since it was seen by me' (Ciudad Real 1600?: fol. 214v)
- (42b) tac las ocho ua las nueve akab tan c meyah
'until eight o'clock or nine o'clock at night we are still working' (HB784C-215C)
- (42c) y t u binel tac vay t cahale
'and he is coming unto here in our town' (HB784C-221)

The same is true in Modern Yucatec:

- (43a) tak ho? k u b'in
'he's going as far as Merida' (Blair and Vermont-Salas 1965:389)
- (43b) tak b'ehlá?e? miná?an ten miš b'á?al
'even today, I have nothing!' (V. Bricker et al. 1998:268)
- (43c) tak tú?uś a tàal
'from where do you come?' (V. Bricker et al. 1998:268)

8. MODAL PARTICLES

Colonial Yucatec had several modal particles, of which only one has survived into Modern Yucatec. The particle, *hij* 'perhaps, maybe, should,' always appeared at the beginning of a clause:

- (44a) hij cimid Juan
'it is possible that John will die' (Ciudad Real 1600?: fol. 184r)
- (44b) hij v bote a ppaxul Pedro
'perhaps Peter will pay your debts' (Ciudad Real 1600?: fol. 184r)
- (44c) hij achac a hanal a kati
'you should not want to eat! [said to a slothful person]' (Ciudad Real 1600?: fol. 184r)
- (44d) hij ho haabac lo
'it may have been five years ago' (Ciudad Real 1600?: fol. 184r)

Another modal particle, xana ‘apparently,’ had an exclamatory function and appeared at the end of an utterance:

- (45) kuchi va Juan ti kaknabe kuchi xana
 ‘did John reach the sea? apparently so!’ (Ciudad Real 1600?: fol. 455v)

The Calepino de Motul lists what may be three variants of a single particle — ual, uel, and uil — all having dubitative meanings. uel and uil are both described as clitic particles with similar meanings, as shown in the following examples:

- (46a) hele vel v talel
 ‘perhaps he will come today’ (Ciudad Real 1600?: fol. 446v)
- (46b) nahech uil t au icin cochoh
 ‘you may have won against your younger brother’ (Ciudad Real 1600?: fol. 319v)
- (46c) bicx uil a tñanic ahau c a nupp ti be
 ‘how would you speak to the king if you met him on the road?’ (Ciudad Real 1600?: fol. 51v)
- (46d) tij vil yan ti y otoch
 ‘it should be there in his house’ (Ciudad Real 1600?: fol. 448r)

ual is also described as a dubitative particle, but with a future implication:

- (47a) mac-al-mac val be
 ‘which will it be?’ (Ciudad Real 1600?: fol. 440v)
- (47b) va venel v cah toh y ol val
 ‘if he sleeps, he will be well’ (Ciudad Real 1600?: fol. 440v)
- (47c) muki val ti akbil a cimil
 ‘you may die tonight!’ (Ciudad Real 1600?: fol. 311v)

Of these dubitative particles, only ual (phonetic [wal]) appears in the Hocaba dialect of Modern Yucatec, but only as the head word in the deictic frame, wal ... e? ‘perhaps, probably, or else’:

- (48a) tàal wale?
 ‘perhaps he came’ (V. Bricker et al. 1998:299)
- (48b) b’èey wal t uy á?alile?
 ‘this is probably what he said’ (V. Bricker et al. 1998:299)
- (48c) ká?ah a hop wal a šikine? h pèedroh
 ‘you’d better listen carefully, Peter’ (V. Bricker et al. 1998:299)

Other examples of this construction appear in **2.2.** in Chapter 15.

9. REPORTATIVE PARTICLES

The reportative particle, *bin* ‘reportedly, it is said, they say,’ was used for qualifying statements as hearsay in Colonial Yucatec:

- (49a) v čhaah *bin* iɔin=çucunil
‘they say that she married two brothers’ (Ciudad Real 1600?: fol. 222v)
- (49b) ma *bin* v kati talel
‘it is said that he does not want to come’ (Ciudad Real 1600?: fol. 240r)
- (49c) chuci *bin* Juan hah-ma-hah
‘they say that John was captured; I don’t know if it is true’ (Ciudad Real 1600?: fol. 277v)
- (49d) yan-yan *bin* vij vaye t u tħanob heuac baili tħan
‘they say that there is much hunger here, but it is a manner of speaking [i.e., they have food]’ (Ciudad Real 1600?: fol. 42v)

The cognate of this particle in Modern Yucatec is *b’in* ‘reportedly, it is said’:

- (50a) má? *b’in* a b’in miš tú?uš h wàan
‘it is reported that you should not go anywhere, John’ (V. Bricker et al. 1998:32)
- (50b) h wàane? t u hič’ah *b’in* u kàal
‘as for John, they say that he hanged himself’ (V. Bricker et al. 1998:105)

Another reportative particle, *cih* ‘say,’ introduced direct quotes in Colonial Yucatec:

- (51a) ca-ix *cihen* ti
‘and then I said to him’ (Ciudad Real 1600?: fol. 72v)
- (51b) ca-ix *cijhi* tiob maan hik pakteac a hohicex ixim
‘and they told them: “no, because you should not uproot the corn
y etel v lobil xiu
with the weeds”’ (Ciudad Real 1600?: fol. 293r)
- (51c) ca tun y alah ahau ti ca *cihi*:
‘and then the king spoke; then he said:
binac yn manab ca-ix au alab ua=bahun v tohol
“perhaps I will buy her if you say how much she costs”’ (Kaua n.d.:I, 50L)
- (51d) ca *cihi* ah conol la pic ti kakan takinil
‘and the merchant said: “ten thousand gold pieces”’ (Kaua n.d.:I, 50L)

The Books of Chilam Balam of Chumayel and Tizimin introduce quotations with the transitive root, *cen*, instead of the particle, *cih*:

- (52a) *ti tun u cenic u ba cappitane bin-ix hutuc t u uich luum*
 ‘then the captain said to himself: “it will be blown to the ground

t u men ykal xane lic tun yn cumtal t in kan=che tunne
 by the wind too, while I sit on my chair” (Gordon 1913:66)

- (52b) *bix tun u cenic u ba rey xani*
 “‘it can’t be helped,” the king said to himself,

c̣ha a ba yumile te u talel franses
 “take care of yourself, lord! here come the French!” (Gordon 1913:66)

- (52c) *ti u cenic u ba nacome*
 ‘the captain said to himself,

c̣ha a ba yumilexe te u tal flansese
 “take care of yourselves, ye lords! here come the French!” (Tizimin n.d.: fol. 8v)

See also the entry for *cen* in the *Calepino de Motul* (Ciudad Real 1600?: fol. 69v).

Both kinds of quotatives have been documented in Modern Yucatec, *cih* (phonetic [kih]) in what I take to be the small town east of Ebtun where John Lucy (1992:xiv, 1993:91–92) conducted fieldwork in the late 1970s, and *cen* (phonetic [ken]) in Hocaba:

- (53a) *ken tī?*
 ‘say it to him!’ (V. Bricker et al. 1998:126)

- (53b) *t u kenah ten*
 ‘he said it to me’ (V. Bricker et al. 1998:126)

- (53c) *k in kèen tī?*
 ‘I told him’ (V. Bricker et al. 1998:126)

The dialect of Modern Yucatec investigated by Lucy has retained the quotative particle, *kih*, that is mentioned in the *Calepino de Motul*, and Hocaba has retained the quotative verb, *ken*, that is mentioned in two Books of Chilam Balam. The particle can only be inflected as a stative verb with suffixed pronouns, whereas the verb is a root transitive that can take the prefixed pronouns.

10. EXCLAMATORY PARTICLES

Colonial Yucatec had a number of exclamatory particles, many of which expressed negative emotions, such as misery, sorrow, pain, annoyance, or anger. Three such particles—*chee*, *chepe*, and *le*, could be glossed as ‘oh!’:

- (54a) otzilen chee
'oh, how miserable I am!' (Ciudad Real 1600?: fol. 138v)
- (54b) t in ppatah in bat chepe
'oh poor me! I lost my axe' (Ciudad Real 1600?: fol. 140v)
- (54c) le yume otzilen cen ix ma ichame
'oh, father! how miserable I am without a husband!' (Ciudad Real 1600?: fol. 264r)

Another expression of misery was ppe 'poor me!':

- (54d) oclabi in nok ppe
'poor me! my clothes were stolen!' (Ciudad Real 1600?: fol. 387v)

Two other exclamatory particles—cuy and be la—could be translated as 'ay!':

- (55a) cuy hach yaab in keban
'ay, I have so many sins!' (Ciudad Real 1600?: fol. 88r)
- (55b) be la tun nah=ooleex ceex ah kebane
'ay, you-all who are unfortunate sinners!' (Ciudad Real 1600?: fol. 50r)

And pel meant 'alas! oh! woe!':

- (56) ti kalen ti mazcab pel u ja
'woe to me that I have been locked up in jail!' (Ciudad Real 1600?: fol. 373v)

Six exclamatory particles are described in the *Calepino de Motul* as serving as expressions of surprise, but only four of them are illustrated in example sentences:

- (57a) v tal padre chee
'the priest comes [and we were not expecting him]' (Ciudad Real 1600?: fol. 138v)
- (57b) ppi otzilech t in chucahech
'oh poor you! I caught you!' (Ciudad Real 1600?: fol. 389v)
- (57c) cuy-cuy ti yan balam
'hello, there is a jaguar!' (Ciudad Real 1600?: fol. 88r)
- (57d) bal baacin
'what is that? [at the end of an unclear response to a question]' (Ciudad Real 1600?: fol. 40r)

In each case, the surprise element cannot be captured in an exact translation of the exclamatory particle, but must be inferred from the sentence as a whole (or from what preceded it). The same is true of *pe!* *aa!*, which is "an expression of surprise and when encountering someone under some spell" (Ciudad Real 1600?: fol. 369v).

On the other hand, exclamatory particles that serve as greetings are semantically more transparent: e ‘hello! hi! listen!’, ache ‘hello! [used to call someone in Campeche],’ chuu ‘hello! hi!’, oy chee ‘hello!’ Apparently, chuu was a greeting used by women (Ciudad Real 1600?: fol. 146v), but the others were not limited by gender. Similarly, exclamatory particles that expressed assent or agreement are easily defined: ee ‘particle of consent or compliance’ and ehen ‘yes, fine!’

The Hocaba dictionary of Modern Yucatec lists the following exclamatory particles (V. Bricker et al. 1998:passim):

(58)	<u>Particle</u>	<u>Gloss</u>
	ʔáah	ah!
	ʔahan	yes, fine, aha!
	ʔàan	yes, aha!
	ʔay	ay!
	ʔàay	cry of surprise
	ʔèeh	is that so?
	ʔ(é)ehen	yes, fine!
	ʔéey	hi!
	b’akáan	well!
	b’ik	beware! be careful!
	yáay	ouch!

Of these, only ʔ(é)ehen had a counterpart in Colonial Yucatec.

11. PARTICLE COMPOUNDS

Although the relative pronoun, bikin ‘when,’ and its Modern cognate, b’ik’in, looks like a disyllabic root, the Calepino de Motul lists bay=kin and biy=kin with the same meaning (Ciudad Real 1600?: fols. 42r, 52r), suggesting that bikin was originally composed of the particle, bay ‘thus, as, like so, according to, since,’ and the noun, kin ‘day, sun, time.’ These data imply that the vowel /a/ in bay=kin was subsequently raised to /i/ and that eventually the /y/ in biy=kin was deleted, yielding bikin, the only variant left in Modern Yucatec (V. Bricker et al. 1998:31). The Calepino mentions biy=kinx ‘when?’ as the interrogative derivation of biy=kin (Ciudad Real 1600?: fol. 52). The Modern cognate of biy=kinx is b’ik’in, which is now identical to the relative pronoun (cf. 8. in Chapter 4).

Besides bikin, there are many, much more transparent examples of particle compounds functioning as pronouns in Colonial and Modern Yucatec. The most obvious ones are the stative pronouns that have been combined with independent pronouns (cf. 4. In Chapter 4):

(59)	<u>Independent Pronoun</u>	<u>Stative Pronoun</u>	<u>Compound</u>
	ten	cen	ten=cen
	‘I, me’	‘I who am’	‘I who am’
	tech	cech	tech=cech
	‘you’	‘you who are’	‘you who are’

toon 'we, us'	coon 'we who are'	t(o)on=c(o)on 'we who are'
teex 'you-all'	ceex 'you-all who are'	teex=cex 'you-all who are'

Neither the stative pronouns nor their compounds with independent pronouns appear in the Hocaba dictionary of Modern Yucatec.

The indefinite pronouns in Colonial and Modern Yucatec are also compounds. One kind of indefinite compound in the Calpino de Motul is composed of a relative pronoun and the particle, hi(j) (phonetic [hiʔ]) 'perhaps, maybe, should':

(60)	<u>Relative Pronoun</u>	<u>Gloss</u>	<u>Indefinite Pronoun</u>	<u>Gloss</u>
	bahun	as many as	hi=bahun	however much, however many
	bal	thing, what	hi=bal	whatever, anything
	bic(i)	how, as, like	hi=bic(i)	like, however, anyhow
	bikin	when	hi=bikin	whenever, anytime
	mac	person, who	hi=mac	whoever, anyone
	tab(a)	where	hi=tab(a)	wherever, anywhere

As explained in 9. in Chapter 4, these indefinite pronouns underwent significant changes over time, including the gradual replacement of hi(j) with he and the eventual embedding of the roots in a héʔe ... eʔ frame.

Another kind of indefinite pronoun combines a relative pronoun with the particle, ua (phonetic [wáah]) 'if, or':

(61)	<u>Relative Pronoun</u>	<u>Gloss</u>	<u>Indefinite Pronoun</u>	<u>Gloss</u>
	bahun	as many as	ua=bahun	somewhat
	bal	thing, what	ua=bal	something
	bic(i)	how, as, like	ua=bic(i)	how, somehow
	biy=kin	when	ua=biy=kin	when, sometime
	mac	person, who	ua=mac	someone
	tab	where	ua=tab	where, somewhere

The changes in their evolution through time are also described in 9. in Chapter 4.

Other particle compounds that do not involve pronouns in the Calpino de Motul include:

(62)	<u>First Particle</u>	<u>Second Particle</u>	<u>Compound</u>
	hij	baac	hij=baac
	'perhaps, maybe, should'	'though, although, even if, until, finally, so that'	is it so? could it be so? it may be so'
	ca	to	ca=to
	'and, that, so that'	'after, still'	'after'

he 'perhaps, maybe, should'	ua 'if, or'	he=ua 'is it?'
hij 'perhaps, maybe, should'	uil 'dubitative'	hij=uil 'perhaps, maybe'
ich 'in, to, within'	tijc 'there'	ich=ticil 'in, within, among'

Some examples of three of these compounds appear in context below:

- (63a) hij=uil toh v tñan hij=uil ma toh
'perhaps he tells the truth, or perhaps not' (Ciudad Real 1600?: fol. 187v)
- (63b) hij=uil to mac ah miatz yan au ichilex bin nattice
'I hardly know what wise man among you will understand' (Gordon 1913:65; Roys 1967:123)
- (63c) ich=ticil ya v mal kin toon
'we pass our lives in misery' (Ciudad Real 1600?: fol. 224v)
- (63d) ca=to xicech
'after you go' (Ciudad Real 1600?: fol. 67v)

None of the compounds in (62) above appear in the Hocaba dictionary of Modern Yucatec.

12. PARTICLE PHRASES

According to John Lyons (1968:171), "any group of words which is grammatically equivalent to a single word and which does not have its own subject and predicate is a phrase." Applying this definition to Colonial Yucatec, there are numerous examples of phrases composed of particles in the *Calepino de Motul*. A case in point is *bac-ix achac* 'but, except, even though, not,' which is composed of the particle, *baac* 'though, although, even if, until [when used as a clitic particle], finally, so that,' the clitic particle, *ix* 'and,' and the particle, *áchac* 'without, besides, except that.' This phrase appears in the following contexts:

- (64a) bac-ix achac v ñabal v boolil toone
'even though we were not given the payment' (Ciudad Real 1600?: fol. 40v)
- (64b) bac-ix achac v baakal nal t u meen buule
'except that the beans are not wrapped in corn husks' (Ciudad Real 1600?: fol. 40v)

Another stock phrase introduced by a particle in Colonial Yucatec was *la ti lah* 'until,' which is composed of the particles, *la(y)* 'this' and *ti* 'to, at, in, from, for,' and the noun, *lah* 'limit, end, object, purpose.'

In the following example sentences, *lah* is inflected with the third-person clitic pronoun, *u*, in *tu*, which is a contraction of *ti u*:

- (65a) *culen vaye la tu lah v kuchul padre*
 'sit here until the priest comes!' (Ciudad Real 1600?: fol. 262v)
- (65b) *hun tao v binel la tu lah t u noh xukil tan noh bebel Bolon Chen*
 'it goes directly until the big corner in front of the highway to Bolon Chen
- naklic v kax ah kebob lae*
 adjacent to the forest of the Keb people' (OX697-011-013)
- (65c) *ca tun ca=put cuxlacob u paktob u xot kin ca yumil ti D.^s*
 'and then they will be revived so that the judgment of our Lord
- la tu lah y ocolob ti christianoil y u kuchul=teilob*
 might unite them until they enter Christianity with their people' (Gordon 1913:98)

Occasionally, *ti* preceded the *la ti lah* phrase, with no difference in meaning:

- (65d) *va ocan kijx ti y oc vinic ma tab tohcin y ol ti la tu lah v poic*
 'if a thorn has entered a man's foot, it will not heal until he removes it' (Ciudad Real 1600?: fol. 299v)
- (65e) *lic v benel hun-hun=tul ti ppicit be ti la tu lah v nuuppulob*
 'they go one-by-one as lookouts until the rotation is complete' (Ciudad Real 1600?: fol. 339v)
- (65f) *ma a benel ti la tu lah valic teche*
 'don't go until I tell you!' (Ciudad Real 1600?: fol. 422r)

Neither of these particle phrases is documented in the Hocaba dialect of Modern Yucatec. The best examples of such phrases in Hocaba and other towns where Modern Yucatec is spoken today are introduced by the particle, *le*, the Modern cognate of *lay*, which functions as the definite article, 'the,' as in *le b'èetik* 'so that, therefore' and *le ká?ah* 'when ...':

- (66a) *le b'èetik yanhíh in kašantik um p'é čàamb'ah*
 'therefore I had to look for a job' (Blair and Vermont-Salas 1967:615)
- (66b) *le b'èetik inw ííç'ne? tí? yani?*
 'therefore my younger brother, there he is' (Blair and Vermont-Salas 1967:642)
- (66c) *le b'èetik le b'èetik le ká?ah t in tuklah in ç'íib'tik le k'àaya?*
 'therefore, therefore when I thought about it, I wrote this song' (Po?ot Yah 1972)
- (66d) *le ká?ah tàale? miná?anen waye?*
 'when he came, I wasn't here' (V. Bricker et al. 1998:165)

13. SUMMARY OF CHANGES IN PARTICLES OVER TIME

Particles have undergone heavy losses in the transition from Colonial to Modern Yucatec, providing fertile soil for the introduction of Spanish loans in the language. The negative and modal particles have been most heavily impacted by these losses. Other losses include one of the two interrogative particles, the stative pronouns and other compounds, and the particle phrases mentioned in the *Calepino de Motul*.

CHAPTER 15

DEICTIC PARTICLES

Colonial and Modern Yucatec have two sets of deictic particles: Initial deictics introduce deictic frames, and terminal deictics end them. Their principal function is to situate objects and events in space and time. Because terminal deictics can occur independently in some contexts, they will be dealt with first.

The most insightful and comprehensive work on this subject is *Referential Practice: Language and Lived Space among the Maya* by William F. Hanks (1990). Its focus is on how deictic particles are used in Modern Yucatec. My task is to describe their form and function in Colonial Yucatec and to pinpoint their changes in time and space.

1. TERMINAL DEICTICS

There are strong continuities in the form of terminal deictics over time, but the degree to which they can co-occur at the end of phrases and sentences has changed significantly in recent times.

1.1. TERMINAL DEICTICS IN COLONIAL YUCATEC. The following terminal deictics are found in Colonial Yucatec:

- (1) la 'proximal'
- lo 'distal'
- be 'peripheral sensory'
- i 'partitive'
- e 'topical'

In many contexts, the proximal and distal meanings of la and lo can be translated as 'this' and 'that,' respectively:

- (2a) ool u cimil vinic la
 'this man is about to die' (Ciudad Real 1600?:fol 349r)
- (2b) ca=buhex che lo
 'split that wood into two pieces!' (Ciudad Real 1600?:fol. 59v)

- (2c) y oklal hach kanan v uilal v yanhal ychil ca cahal hab la
 ‘because it is of the utmost importance that they be in our town this year’ (MID567:fol. 365, lines 10–11)
- (2d) in mahan tzimin lo
 ‘that is my borrowed horse’ (Ciudad Real 1600?:fol. 286r)

The first two examples illustrate another function of *la* and *lo*, namely to mark the nominal subjects of intransitive verbs (vinic ‘man’ in [2a]) and patients of transitive verbs (che ‘wood’ in [2b]) (Smailus 1979, 1989:108; cf. 1.1. in Chapter 16).

Hanks (1990:254–255) calls *be* a “peripheral sensory” particle that refers to objects that can be heard but not seen (see also Smailus 1979):

- (3) hoki y anumal t u xicin ahau u beeltabal u lobil be
 ‘news that evil deeds were being performed reached the ears of the king’ (Ciudad Real 1600?:fol. 190v)

The principal function of *i* is to refer to part of a whole:

- (4a) laaci hun ppelili laaci
 ‘even though it may be only one’ (Ciudad Real 1600?:fol. 257v)
- (4b) laacx ba hun ppel ca ppeli
 ‘at least one or two’ (Ciudad Real 1600?:fol. 258v)
- (4c) ma u teal u çaatal hun ppeli
 ‘it does not matter that one is lost’ (Ciudad Real 1600?:fol. 302r)
- (4d) hun-hû ppel tomin u malobi
 ‘to each one goes a coin’ (Ciudad Real 1600?:fol. 290v)

Each example implies that there are multiple objects, of which only one is mentioned. *e* contrasts with *i* in specifying the topic of the clause or sentence that follows:

- (5a) cech ah tepale
 ‘you who are the ruler’ (MID567:fol. 368, line 123)
- (5b) tac paale
 ‘as for the boy who came’ (Ciudad Real 1600?:fol. 160v)
- (5c) le vinoe y ah hopçahul tzucachil
 ‘as for wine, it is the inducement for lewdness’ (Ciudad Real 1600?:fol. 18r)

1.2. TERMINAL DEICTICS IN MODERN YUCATEC. The following terminal deictics occur in Modern Yucatec:

- (6) a? 'proximal'
 o? 'distal'
 b'e? 'peripheral sensory'
 i? 'partitive'
 e? 'topical'

Some examples of their usage at the end of phrases and sentences appear in (7):

- (7a) b'e=?òoráa? k im b'ina?
 'I go now' (V. Bricker et al. 1998:29)
- (7b) letí? čam b'èelo?
 'it is that little road' (V. Bricker 1981a:221, line 85)
- (7c) náak u b'á?ate?ló?ob' ká?ačo?
 'their war arose long ago' (V. Bricker 1981a:221, line 73)
- (7d) ká?ah ǵ'ó?ok im b'èelo?
 'when I married then' (EBT979A)
- (7e) k in máan h màan kàašo?
 'I was moving around buying those chickens' (EBT979A)
- (7f) čéen um p'ít i y òoli?
 'he only knows a little of it' (Blair and Vermont-Salas 1965:20)
- (7g) tene? t in čam b'in h màan
 'as for me, I'm just going shopping' (Blair and Vermont-Salas 1965:254)

1.3. HISTORICAL CHANGE IN TERMINAL DEICTICS. Only the proximal and distal terminal deictics have undergone significant changes during the four centuries separating Modern from Colonial Yucatec:

(8)	Colonial Yucatec	Modern Yucatec
Proximal	la	a?
Distal	lo	o?
Peripheral sensory	be	b'e?
Partitive	i	i?
Topical	e	e?

Assuming that la and lo were realized phonetically as [la?] and [lo?] in Colonial Yucatec, the change involved reducing a CVC morpheme to VC by dropping [l]. be retained its CVC structure, and i and e did not have an initial consonant in Colonial Yucatec.

The changes from la and lo to a? and o? began during the eighteenth century. The earliest evidence of this shift in my documentary corpus is in the testament of Agustina Pox in the town of Dzan in the foothills of the Puuc, which bears a date of 1 October 1700. In it, she bequeaths a tract of forest that she inherited

from her father to her daughter, Micaela Acosta. She refers to the forest as in *kaxa* (phonetic [in k'áašaʔ]) 'this forest of mine,' not in *kax la* [phonetic [in k'áaš laʔ]], the way it would have been written in earlier times.

The second piece of evidence that the change happened during the eighteenth century comes from another testament, this time from Tekanto, northeast of Merida, with a date of 29 August 1754 and attributed to Aparizio Camal. In this case, there are two statements that refer to tracts of forest, one with a 'this' and the other with o 'that':

(9a) y etel ho kal yn matan *kaxa*
'and one hundred square meters is this gift of my forest' (TK754N-432A)

(9b) t u nohol lai *kaxo*
'south of that forest' (TK754N-432C)

However, in later documents from the 1770s produced in Tekanto, the older form of the terminal deictic (*la*) was still in use:

(10a) lai t u bethob lob *la*
'it was they who did this harm' (TK770B-014)

(10b) hali yan ten *la*
'truly I have this' (TK775B-024)

This suggests that both the original and the innovated forms of these terminal deictics were employed concurrently in Tekanto.

In documents produced in the eastern part of the peninsula, expressions involving the particle *tun* 'then' are useful for identifying the transformation of *lo* into *o*. In Ebtun, for example, the first evidence of *o* shows up in the expression *lay tuno* in 1762:

(11) lay *tuno* y ilah v hahil
'that one, then, saw the truth' (EBT762B)

However, in Tepich, which lies about 50 kilometers south of Ebtun, *tun* was followed by *lo* as late as 1779:

(12a) bay *tun lo* yn tzicbenil yume
'thus, then, my reverend father' (PCH779B)

Whereas Chunchuhub, which lies about 100 kilometers further south, had documents with the following examples of *o* and *a* in 1783 and 1784:

(12b) he *tuno* ma tech u thanicon y utzul than
'there, then, he never speaks to us with kind words' (HB784C-226A-B)

(12c) ba *tuno* t uy alah yn yum curae
'thus, then, our father the curate said it' (HB783A-031A-B)

(12d) hecen talob uai ti noh ofisio ti *hoa*
'and all these who came here from the great office in Merida' (HB783A-036B)

Likewise in the region around Tekanto, *bai tuno* or *bay tuno* can be documented for the years 1781 and 1813.

The slow pace of the change in the form of these terminal deictics can be explained only by placing them in a larger context involving not only the initial deictics (**2.1.** and **2.2.**), but also the embedding of one deictic expression in another (**2.3.**).

2. INITIAL DEICTICS AND DEICTIC FRAMES

Initial deictics are usually followed by terminal deictics, either immediately or later in the sentence or phrase in both Colonial and Modern Yucatec. In the latter configuration, they serve as framing particles.

2.1. INITIAL DEICTICS IN COLONIAL YUCATEC. The following initial deictics can be found in the *Calepino de Motul*:

- (13) bay
 he
 lay
 layli
 ma
 te
 tij
 to
 ual
 valacil
 uay

When combined with terminal deictics, they formed the following deictic frames:

- (14) bay ... e 'likewise, as, thus'
 bay ... la 'like this'
 bay ... lo 'like that'
 he ... be 'peripheral sensory'
 he ... e 'as for'
 he ... la 'here it is'
 he ... lo 'there it is'
 lay ... la 'this one'
 lay ... lo 'that one'
 layli ... e 'still, even, now'
 ma ... i 'no, not'
 te ... la 'right here, here'
 te ... lo 'there'
 tij ... i 'there'
 to ... lo '[out] there'
 ual ... e 'perhaps, probably'
 uay ... e '[in] here'

bay could co-occur with three terminal deictics in Colonial Yucatec (e, la, lo):

- (15a) utzcin bay bin au alicé
'do as you think best!' (Ciudad Real 1600?:fol. 41v)
- (15b) huli ti bai la
'did he come by chance? [literally, he came like this] (Ciudad Real 1600?:fol. 209v)
- (15c) bay u xocan lo
'as numerous as those' (Ciudad Real 1600?:fol. 43r)

he could co-occur with four terminal deictics (be, e, la, lo). First of all, he ... be is a quotative frame that references what is audible, but not visible:

- (16a) he au alah ten be
'that which you told me' (Ciudad Real 1600?:fol. 49v)

Some examples of he with the other terminal deictics are:

- (16b) xic ah cumkalob ti y otoh ku he u chayanobe tacob t in pach
'the people of Conkal may go to the church; as for the others, they may go with me' (Ciudad Real 1600?:fol. 180r)
- (16c) he c u tal padre la
'here comes the priest!' (Ciudad Real 1600?:fol. 406r)
- (16d) he c u benel lo
'there he goes!' (Ciudad Real 1600?:fol. 205r)

lay ... la and lay ... lo are demonstrative pronouns:

- (17a) lay in pach almah=xicin teex la
'this is my final advice to you!' (Ciudad Real 1600?:fol. 358r)
- (17b) lay u paz u cab u cuxtal lo
'that is the way life is!' (Ciudad Real 1600?:fol. 357r)

They are discussed at length in 7. in Chapter 4.

layli appears in the Calepino de Motul, but not with a terminal deictic (Ciudad Real 1600?:fol. 260v). The first clear evidence of a layli ... e frame in my documentary database is in a testament from 1732:

- (18) ho kal v lumil yn man col
'one hundred square meters of the land belonging to the cornfield that I purchased
- ti Chistobal Balam c in dayc ti vilib Agustina Mena
from Christobal Balam is what I give to my daughter-in-law Agustina Mena,

t u nak v kax Andres Chan t u chikin nohol layli v nake
 which is adjacent to the forest of Andres Chan on the southwest, still adjacent' (TK732D)

Other examples of layli in context appear in **2.3.** in Chapter 4.

There are many examples of ma 'no, not' in the Calepino de Motul, but not always with the partitive terminal deictic:

- (19a) ma chucaani
 'it is not complete [i.e., part of it is missing]' (Ciudad Real 1600?:fol. 147r)
- (19b) ma in kat in tac in bai
 'I do not want to meddle in this!' (Ciudad Real 1600?:fol. 399r)
- (19c) ma in botahi
 'I did not pay for it [and don't plan to]' (Ciudad Real 1600?:fol. 277v)
- (19d) ma in bote in ppax
 'I have not paid my debts [but will do so]' (Ciudad Real 1600?:fol. 277v)
- (19e) ma in nuctahi
 'I did not understand it' (Ciudad Real 1600?:fol. 333r)
- (19f) ma nucaan t in xicin
 'I do not understand it' (Ciudad Real 1600?:fol. 333r)

The examples without the partitive terminal deictic ([19d] and [19f]) seem to be more general in scope than those that have it ([19a–c] and [19e]) (cf. Durbin and Ojeda 1978b).

There were three deictic frames based on te in Colonial Yucatec, employing the terminal deictics e, la, and lo:

- (20a) te bin u malel cumkale
 'they say that he was passing Conkal there' (Ciudad Real 1600?:fol. 415r)
- (20b) lukez tunich te la
 'remove that stone from here!' (Ciudad Real 1600?:fol. 275v)
- (20c) manez te lo
 'transfer it there!' (Ciudad Real 1600?:fol. 296r)
- (20d) ma te la maix te lo
 'neither here nor there' (Ciudad Real 1600?:fol. 289r)

In these examples, only te ... e actually frames other parts of a phrase or sentence. Neither the Calepino nor my documentary database contain examples of te combined with la and lo as framing particles per se. I suspect that this is an accidental gap in my data, because they do serve as framing particles in Modern Yucatec (e.g., [84], [86], and [87] in Hanks 1990:434–435; see also **2.2.** below).

tij (phonetic [tiʔ]) co-occurs only with the partitive enclitic i (phonetic [iʔ]) in Colonial Yucatec:

- (21) tijech cil yan ca bin manancen*i*
 'you will be there when I pass by' (Ciudad Real 1600?:fol. 418v)

to ... lo can refer to 'out there' in both space and time:

- (22a) to lo a ɔa*i*c
 'put it out there!' (Ciudad Real 1600?:fol. 426r)
- (22b) lac ákab to ca tacech lo
 'after night falls, you will come' (Ciudad Real 1600?:fol. 258r)

The dubitative particle ual 'perhaps, probably' co-occurred with the terminal enclitic e only at the end of phrases and sentences in Colonial Yucatec:

- (23a) bay vale
 'is that so?' (Ciudad Real 1600?:fol. 42v)
- (23b) lai uale
 'this should be!' (Ciudad Real 1600?:fol. 227r)
- (23c) muki val ti akbil a cimil
 'perhaps you will die tonight!' (Ciudad Real 1600?:fol. 311v)

It forms a deictic frame with e in Modern Yucatec (cf. **2.2.** below).

valacil 'at this time' is an initial deictic that is not part of a deictic frame in Colonial Yucatec but eventually did form such a frame in Modern Yucatec (cf. **2.2.** below). Two examples of its use are given in the Calepino de Motul:

- (24a) valacil çamal
 'at this time tomorrow' (Ciudad Real 1600?:fol. 441r)
- (24b) valacil hun haab
 'one year from today' (Ciudad Real 1600?:fol. 441r)

uay ... e '[in] here' represents the semantic opposite of to ... lo '[out] there':

- (25a) vay y okol cabe
 'here in the world' (Ciudad Real 1600?:fol. 220r)
- (25b) vay ti noh cah ti hoe
 'here in the city of Merida' (DZ587A-001F)
- (25c) ɔiban v kabaob vay cabale
 'their names are written in here below' (TK698-018A-018B)

2.2. INITIAL DEICTICS IN MODERN YUCATEC. The following initial deictics occur in Modern Yucatec:

- (26) b'ey
 hé?e
 le
 láayli? ~ léeyli?
 ma?
 té?e
 ti?
 to
 wal
 wal(a)kil
 way

When combined with terminal deictics, they form the following deictic frames:

- (27) b'ey ... e? 'likewise, as, thus'
 b'ey ... a? 'like this'
 b'ey ... o? 'like that'
 hé?e ... b'e? 'peripheral sensory'
 hé?e ... (l)a? 'here it is'
 hé?e ... (l)o? 'there it is'
 le ... (l)a? 'this one'
 le ... (l)o? 'that one'
 láayli? ~ léeyli? ... e 'still, even, now, yet'
 ma? ... i? 'no, not'
 táant ... e? 'just'
 té?e ... (l)a? 'right here, here'
 té?e ... (l)o? 'there'
 ti? ... i? 'there'
 to ... (l)o? '[out] there'
 wal ... e? 'perhaps, probably, or else'
 wal(a)kil ... a? 'at this time [of day]'
 way ~ wey ... e? '[in] here'

b'ey co-occurs with three terminal deictics in Modern Yucatec (e?, a?, and o?):

- (28a) b'ey inw óol sen ?úuče?
 'it seems a long time ago to me' (V. Bricker et al. 1998:31)
- (28b) ká?ah p'áató?on túun b'eya?
 'and we remained then like this' (EBT979A)
- (28c) čéen b'ey yanilena?
 'I am just like this' (EBT979A)

- (28d) máʔ hač ʔóoʔilóʔon b'eyoʔ
'we weren't so poor like that' (EBT979A)
- (28e) čéem b'ey u púʔupulik u tàak'inoʔ
'in just that way he throws away his money' (V. Bricker et al. 1998:224)

Likewise, héʔe co-occurs with three terminal deictics in Modern Yucatec (b'eʔ, [l]aʔ, [l]oʔ):

- (29a) pìilareʔ t u pak'ač hée b'eʔ
'Pilar's making tortillas. There! Listen! (cocking ear).' (BB.5.7; Hanks 1990:275)
- (29b) héʔe laʔ
'here it is!' (V. Bricker et al. 1998:102)
- (29c) héʔe loʔ letiʔ b'inen in manaʔ
'There it is! That's what I want to buy.' (BB.4.31; Hanks 1990:277)
- (29d) héʔ yàan sáabukàanoʔ
'There it is in the bag.' (BB.1.94; Hanks 1990:275)

The /l/ in laʔ and loʔ surfaces only when aʔ and oʔ immediately follow héʔe.

láayliʔ 'still, even, now, yet' is composed of the third person singular independent pronoun lay 'he, she, it' in Colonial Yucatec and the enclitic ili (phonetic [iliʔ]) 'still, yet' (cf. **2.1.** above and **2.1.** in Chapter 4). léeyliʔ is based on the more recent forms of this pronoun (le and ley). Some examples of the use of láayliʔ ... eʔ and léeyliʔ ... eʔ appear below:

- (30a) láiliʔ mináʔan tóʔon tàak'ineʔ
'we don't have money yet' (Blair and Vermont-Salas 1965:139, 158)
- (30b) walkil sáamaleʔ léeyliʔ wayanečeʔ
'at this time tomorrow, you will still be here' (V. Bricker et al. 1998:299).
- (30c) léeyliʔ t u wèenleʔ
'he's still sleeping' (V. Bricker et al. 1998:165)

In le ... (l)aʔ and le ... (l)oʔ, /l/ surfaces in the demonstrative pronouns, le laʔ 'this one' and le loʔ 'that one,'¹ but not when the frames serve as demonstrative adjectives:

- (31a) le laʔ in ʔéen=palil
'this one is the child I raised' (V. Bricker et al. 1998:43)
- (31b) u b'aatab'il le kàahaʔ
'the ruler of this town' (V. Bricker et al. 1998:28)
- (31c) le b'aʔaš k aw áʔalikoʔ le loʔ hač ʔúučih
'that which you say, that one was long ago' (V. Bricker et al. 1998:20).

As in Coloniall Yucatec (cf. **2.1.** above), *máʔ* can appear with or without the partitive enclitic *iʔ*:

(32a) *máʔ* in *k'áatiʔ*
'I don't want it' (V. Bricker et al. 1998:176)

(32b) *máʔ* t u b'in
'he's not going' (V. Bricker et al. 1998:176)

Other examples of *máʔ* ... *iʔ* 'not' are given below:

(32c) *máʔ* *máʔa=lob'čahakiʔ*
'he has not recovered' (V. Bricker et al. 1998:176)

(32d) *máʔa* t uy áʔalah ʔuʔ t uy ičiʔ
'he didn't say that he liked it' (V. Bricker et al. 1998:176)

Here, too, the example without the partitive enclitic (32b) seems to be more general in scope than the ones that have it (32a, 32c-32d) (cf. Durbin and Ojeda 1978b).

The initial deictic in *táant* ... *eʔ* 'just' is composed of the durative aspect particle plus *t*:

(33) *táant* in *hàanleʔ*
'I just ate' (V. Bricker et al. 1998:270)

Like *héʔe* ... (I)aʔ, *héʔe* ... (I)oʔ, *le* ... (I)aʔ, and *le* ... (I)oʔ, the */l/* in *téʔe* ... (I)aʔ 'right here, here' and *téʔe* ... (I)oʔ 'there' surfaces only when the terminal deictic immediately follows the initial deictic:

(34a) t u láakal b'áʔaš t a mèentah ten *téʔe* k u kùupankil t in puksíʔik'alaʔ
'everything you did to me, it is bottled up here in my heart' (V. Bricker et al. 1998:138)

(34b) *máʔa* to t a k'àanoʔ, *téʔe* k'àan *téʔe* laʔ
'Not over there in your hammock, right here in the hammock here.' (BB.4.60; Hanks 1990:481)

(34c) b'is *téʔe* kàabaloʔ
'take it down there!' (V. Bricker et al. 1998:118)

(34d) ʔ'áah ten in toʔ yàan *téʔe* loʔ
'give me my bundle that is over there!' (V. Bricker et al. 1998:277)

The next deictic frame is *tíʔ* ... *iʔ* 'there':

(35) *tíʔiʔ* *tíʔ* t kanahiʔ
'there, we learned it there' (Blair and Vermont-Salas 1965:52)

to ... (I)oʔ '[out] there' behaves like *héʔe* ... (I)aʔ, *héʔe* ... (I)oʔ, *le* ... (I)aʔ, *le* ... (I)oʔ, *téʔe* ... (I)aʔ, and *téʔe* ... (I)oʔ:

- (36a) šéen to ?iç naho?
'go over there in the house!' (BB.4.129; Hanks 1990:419)

- (36b) tiʔan to lo?
'They're over there.' (BB.4.75; Hanks 1990:419)

wal ... eʔ 'perhaps, probably, or else' has become a deictic frame in Modern Yucatec:

- (37a) b'e=ʔòorá(h)a(ʔ) tíʔ čilikb'al wal t u k'àane?
'right now, he's probably lying down there in his hammock' (Blair and Vermont-Salas 1993:1057)
- (37b) káʔah a hop wal a šikineʔ h pèedroh
'you'd better listen carefully, Peter!' (V. Bricker et al. 1998:299)
- (37c) tak lás d'òose(h) ʔáak'ab' waleʔ
'until twelve o'clock at night probably' (Blair and Vermont-Salas 1993:1057)

The initial deictic phrase in wal(a)kil ... aʔ 'at this time [of day]' contains the subjunctive suffix -ak, followed by the nominal suffix -il. The root in this phrase (wal) does not seem to have any semantic relationship to the dubitative particle wal. An example of the use of this deictic phrase appears below:

- (38) walkil sáamaleʔ tíʔ yanen kankùumeʔ
'at this time tomorrow, I will be in Cancun' (V. Bricker et al. 1998:299)

Last, but not least, is way ... eʔ '[in] here,' which contrasts in meaning with to ... (l)oʔ '[out] there':

- (39a) way t uy ilaheʔ
'he saw it here' (V. Bricker et al. 1998:301)
- (39b) ká sùnahanen tàal wayeʔ
'then I turned around to come back here.' (BB.4.78; Hanks 1990:412)

The initial deictic way has an alternate form (wey) in the dialects of Yucatecan Maya spoken in Hocaba (V. Bricker et al. 1998:301, 304), Sotuta, and Chanchah (in Quintana Roo) today :

- (39c) tak káʔah k'učuk wey tak k'íiwik
'until he came here to the plaza' (V. Bricker 1981a:235, line 473)
- (39d) káʔah ʔòok túun takčib'ič'é?enóʔob' wey kàaheʔ
'and then those from Tacchibichen entered this town here' (SOT971A:6)

2.3. EMBEDDED TERMINAL DEICTICS. In discussing the relative ranking of terminal deictics (TDS) in Modern Yucatec, Hanks (1990:491) mentions that "there are two major constraints on the normal syntactic distribution of TDS: (i) they occur only at the final boundaries of a topic phrase or sentence, and (ii) only one TD occurs at any boundary." The first constraint also applied to Colonial Yucatec; the second did not. The following example from a text dating to 1567 illustrates the embedding of one deictic frame in another, with multiple terminal deictics at the end of the phrase:

- (40) he tun a halach vinic yan vai la e
 'then, as for this ruler of yours, who is here' (MID567:fol. 367, line 78)

The two frames in this example are he ... la 'this' and vai ... e '[in] here.' The terminal deictic of the first frame (la) is embedded in the second frame (vai ... e).

Much more common are phrases and sentences ending with terminal deictics preceded by a single initial deictic:

- (41a) bay bin a nuppicex au ox=kaz olal lo e
 'thus you will resist those carnal desires of yours' (Ciudad Real 1600?:fol. 339r)
- (41b) lay u beel Juan tzucachil lo e
 'this is John's condition: lust' (Ciudad Real 1600?:fol. 50r)
- (41c) y etel ca nucteylob yan vay ti provincia yucatan la e
 'and our elders who are here in this province of Yucatan' (MID567:fol. 365, line 4)
- (41d) he ix kax lo e
 'and as for that forest there' (OX772-007)
- (41e) he t u than lic c alic tech la e
 'as for in the language in which we say this to you' (MID567:fol. 367, line 93)
- (41f) ma v tialob i e
 'it is not theirs' (DZ651E-616B)

The above examples suggest that e always occupies the final position in a phrase or sentence after lo, la, and i.²

As such, e was easily lost in the transition to Modern Yucatec, when la and lae became a?, lo and loe became o?, and ie became i?. Because terminal deictics have become mutually exclusive (Blair and Vermont-Salas 1965:253–256, 1967:845; Hanks 1990:491), it is now necessary to rank them as follows: a? > o? > b'e? > i? > e?. As a result of the reduction of the number of possible terminal deictics in phrases and sentences from two to one, e? has become an "empty placeholder" (Hanks 1990:567), invoked when no other terminal deictics are relevant.

However, there is still one reflex of Colonial Yucatec lae in the modern language, in b'ehlá?e? or b'ehelá?e? 'now, today, these days, actually, nowadays' (V. Bricker et al. 1998:29; Hanks 1990:18–19). The sixteenth-century forms of this expression were hele la (Ciudad Real 1600?:fol. 206v) and hele lae:

- (42a) u kinil ocçah ba hele lae
 'now is the time for converting oneself' (Ciudad Real 1600?:fol. 341r)
- (42b) tan=çuuanen hele lae
 'I am very busy now' (Ciudad Real 1600?:fol. 412r)
- (42c) bal v nen v cij au ol hele lae
 'what are you imagining now?' (Ciudad Real 1600?:fol. 326v)

- (42d) vay ix yan v mandamiento t in pach hele lae
 ‘and here there is his writ against me now!’ (DZ587A-079-080)

A seventeenth-century example of *hele lae* appears below:

- (42e) ca ti nuppi v cabal v multunil hele lae
 ‘then he ran across the placement of his mound today’ (DZ651C-452A-B)

The first modification of *hele lae* appeared in the second half of the 1840s, when it was combined with *ba* or *bay* ‘thus’ in letters originating from Tihosuco in the east and Tekax in the Puuc region:

- (43a) ba=hele lae ɔooc u kuchul ora
 ‘now the hour has come’ (HTZ847A)
- (43b) c inu alic tech bay=hele lae
 ‘I say it to you now’ (TKX848A)

By 1850, *bay* had changed to *bei* in Chan Santa Cruz in Quintana Roo:

- (44) bei u oraila bei=hele lae
 ‘thus the hour is now’ (V. Bricker 1981a:203, lines 575–576)

The shift from *bay* to *bei* or *bey* echoed the shift of *lay* to *ley* or *lei* in the third person independent pronouns, which had begun much earlier during the seventeenth century (cf. **2.3.** in Chapter 4 and **2.4.1.** below). With that modification, all the elements in *b’ehlá?e?* or *b’e=helá?e?* were in place.

Thus, the root of *b’ehlá?e?* is not *b’eh* ‘road,’ as I originally thought (V. Bricker et al. 1998:29; see also Hanks 1990:312). The word is, rather, composed of two roots—*b’èey* ‘thus’ and *hele(l)* ‘today’—and the terminal deictics *la?* and *e?*.

Hanks (1990:501–504) mentions one other, rare (and highly specialized) context in which more than one terminal deictic may be associated with a single sentence or phrase, namely when a citation form is embedded within a *le ... (l)o?* frame during an elicitation session:

- (45a) le hé?eleče? o? —> miš b’á?ah kiyáaik—>
 ‘That hé?eleče? (that you’ve said), it means nothing.’ (F.1.B.168; Hanks 1990:502)
- (45b) pwes u k’áat iy á?al le tí?ili a? o? —>
 ‘Well, this tí?ili (that you’ve said), it means
- ʔóli ká k ʔá?al um p’ée b’á?a sùuk—>
 it’s sort of like if we were to say a customary thing.’ (F.1.A.685; Hanks 1990:503)

Below are comparable examples from Hocaba and Ebtun:

- (45c) k(uy) ilá?ale? ká?ah luk’ le šá?ak’ i? o?
 ‘it was seen that that anatto paste left there’ (Po?ot Yah n.d.b)

- (45d) má? t inw á?al **i? o?** tíyoh
 ‘isn’t that what I said, Uncle?’ (EBT979C)

Such examples would not have been regarded as problematical in Colonial times, when there was no restriction on the number of deictics that could occur at the end of a phrase, and, in fact, there were already examples of the embedding of one deictic frame in another then, albeit in a different context (e.g., [40] above). For this reason, I regard the examples in (45a–d) as vestiges of an earlier more general tolerance for the presence of multiple terminal deictics at the boundary of clauses and phrases.

There is one other specialized context in the dialect of Modern Yucatec spoken in Oxkutzcab where more than one terminal deictic can appear at the end of a sentence or phrase, namely when a terminal deictic is reduplicated in a process that Hanks (1990:498–501) calls “expressive stretching”:

- (46a) hé? yáalka? le ha? b’ey a?a?
 ‘The water will surely run (off) this way.’ (BB.5.60; Hanks 1990:498)
- (46b) má? klàaro ?i?istak o?o?
 ‘Of course, it’s not clear.’ (F.1.A.895; Hanks 1990:499)
- (46c) pwes u k’áat y á?al tí? a tàal e?e?
 ‘Well, “There is where you come from,” it means’ (F.1.A.774; Hanks 1990:500)

In examples like these, *a?a?*, *o?o?*, *i?i?*, and *e?e?* are used for emphasis (see also Ojeda and Durbin 1978b:55–60). Their counterparts in the Colonial orthography (if there had been any) would have been: *lala*, *lolo*, *ij*, and *ee*. There are no examples of *lala* or *lolo* in my documentary database, and *ij* and *ee* would have been ambiguous because they could have represented phonetic [i?] and [e?], respectively. On the other hand, it is possible that the reduplicated vowel in *bei=hele laa* in (44) was intended to indicate emphasis, rather than *a?*. *b’ehlá?a?* with a more general meaning also occurs in Modern Yucatec (V. Bricker et al. 1998:29), conforming more closely to *bei=hele laa* in (44).

There are also a few examples of the reduplication of initial deictics in Modern Yucatec:

- (47a) hé? yàan hé?ela?
 ‘Here it is here (take it!).’ (Hanks 1990:471)
- (47b) hé? k u b’in leti? hé?elo?
 ‘There goes the one there (look!).’ (Hanks 1990:471)

Sometimes the deictic frame, consisting of both initial and terminal deictics, can be reduplicated:

- (47c) tí?i? tí? t kanahi?
 ‘there, we learned it there’ (Blair and Vermont-Salas 1965:52)

The first instance of the frame in this example consists only of the initial and the terminal deictics, whereas the second frames a lexical verb inflected for completive aspect (*t kanah*).

2.4. HISTORICAL CHANGE IN INITIAL DEICTICS AND DEICTIC FRAMES. The principal changes that took place in deictic particles over time involved the raising of medial /a/ to /e/ before final /y/ in initial deictics, the

loss of /l/ in la, lo, lae, and loe after words ending in non-laryngeal consonants, and the limitation of the number of terminal deictics that could occur at the end of a phrase or sentence to one.

2.4.1. VOWEL FUSION IN [Y]-FINAL INITIAL DEICTICS. /a/ served as the medial vowel before /y/ in three of the initial deictics in Colonial Yucatec: bay, lay, and uay. During the Colonial period and after, lay gradually became ley or le, bay became bey, and uey became a variant of uay.

The first evidence of lay being replaced by ley in my database comes from a document in the Titles of Ebtun dated to 1675:

- (48) bay xan ley in matan ti in yume
 'thus also this alms of mine to my father' (EBT675A)

However, this phrase is only one of seven references to the demonstrative pronoun in the document. The other six were written as lay.

The next references to ley (or lei) instead of lay in an Ebtun document were written more than a century later in 1784:

- (49a) ley u tial ah camalob
 'this is for the Camal men' (EBT784A)
- (49b) ley u tial Dn Matheo Camal
 'this is for Don Mateo Camal' (EBT784A)
- (49c) lei t betah t u can titzil lae
 'this we did in the four corners' (EBT784A)

Now there were three instances of ley in a single document, but there were also six references to lay.

Another reference to ley showed up four years later in 1788:

- (50) hele en 26 de enero de 1788 a^s ley lae
 'today on the 26th of January of 1788 years, this' (EBT788A)

This time there were only two instances of lay in the document.

A document dated to 1791 contained one instance of le and one of lay:

- (51) va t u mentab le hal tħana
 'or he made this true word' (EBT791C)

Another document dated to the same year contained one instance of le, but three instances of lay:

- (52) le ix c in kubic y u huunil lae
 'and this is what I delivered with the letter' (EBT791F)

There is only one document with ley, lei, or le from the first decade of the nineteenth century in Ebtun, which contains four instances of le and none of lay:

- (53a) le lob t u metah_o
'that harm that he did' (EBT809B)
- (53b) ma t jocabes...bi le despacho
'we did not finish this dispatch' (EBT809B)
- (53c) yan ychil le despacho
'it exists in this dispatch' (EBT809B)
- (53d) le lob t u betah_o ten
'that harm that he did to me' (EBT809B)

Table 15-1 shows that there continued to be roughly equal numbers of *ley* and *lay* during the second and third decades of that century. The last document in the Titles of Ebtun bears a date of 1835.

The variety of contexts in which *ley* (or *lei* or *le*) appeared in these documents suggests that this form of the demonstrative pronoun was in free variation with *lay* (and its variants). Only in the formulaic legal language used to certify these documents did *lay* usually prevail:

- (54a) lay u hahil in t_han
'this is the truth of my words' (EBT675A)
- (54b) lay u hahil ca firma
'this is the truth that we certify' (EBT784A)
- (54c) lay u hahil ca firmanahon
'this is the truth that we certified' (EBT813A)
- (54d) lay v hahil yn firma y testigosob
'this is the truth that I certify with witnesses' (EBT814C)
- (54e) lay v hahil en 12 de julio de 1822
'this is the truth on the 12th of July of 1822' (EBT822A)

Although *ley* and *lei* had clearly emerged during the Colonial period and were well represented in the Titles of Ebtun, the vast majority of documents contained only *lay*, *lai*, or *la*, and only two documents in that collection employed only *ley*, *lei*, or *le*. It was not until much later that *lay* disappeared altogether as a variant of the demonstrative pronoun in Ebtun (*le* was the only form of the demonstrative pronoun in use when I lived there for three and a half months during the winter and spring of 1979).

The documentary record for *ley* began much later in Tekanto (1739) than in Ebtun (1675), but once underway *ley* took hold more consistently in Tekanto and its hinterland than in Ebtun (compare Tables 15-1 and 15-2).

The document written in 1739 contained two instances of *ley* (or *le*) and no instances of *lay* (or *lai*):

- (55a) he ley xan v sima ti santo
'this one here also, he has given to the saint' (TK739A)

Table 15-1. Documents containing *le*, *ley*, or *lei* as initial deictics in the Titles of Ebtun.

Document	<i>le(y)</i> or <i>lei</i>	<i>la(y)</i> or <i>lai</i>
a. Ebtun		
1784 (Mar 23)	3	6
1788 (Jan 26)	1	2
1791 (May 14)	1	3
1791 (Dec 19)	1	0
1809 (Jul 30)	5	0
1811 (Apr 18)	3	3
1811 (Dec 13)	0	2
1811 (Dec 13)	1	2
1813 (Feb 24)	1	1
1813 (Feb 24)	1	2
1813 (Mar 6)	1	3
1814 (Jan 28)	2	1
1814 (Jun 28)	2	2
1817 (Dec 19)	2	2
1817 (Dec ?)	1	3
1819 (Aug 15)	1	1
1822 (Jul 12)	1	1
1822 (Jul 12)	3	1
1822 (Nov 20)	1	1
1825 (Apr 15)	1	1
b. Nearby town		
1675 (May 9)	1	6 (Kaua)

- (55b) *ca t u siah ley Juo Ak(e) lae*
 'and this John Ake gave it' (TK739A)

Four testaments, each containing one example of *ley*, were penned in 1743 by the notary Manuel Poot. The following phrase appears in each of them:

- (56) *ley licil yn tzolic yn testamento*
 'this is what I advise in my testament' (TK743G)

Each testament also contains three to six examples of *lay*.

Table 15-2. Documents containing *le*, *ley*, or *lei* as initial deictics in the Documentos de Tekanto.

Document	<i>le(y)</i> or <i>lei</i>	<i>la(y)</i> or <i>lai</i>	
a. Tekanto			
1739 (Jan 12)	2	0	
1743 (Aug 4)	1	6	
1743 (Aug 10)	1	4	
1743 (Aug ?)	1	4	
1743 (Aug 22)	1	3	
1749 (Feb 12)	1	0	
1749 (Feb 13)	1	0	
1804 (Jul 2)	5	1	
1807 (Jan 13)	1	1	
1808 (Jul 22)	4	0	
1812 (Jul 21)	1	0	
1812 (Nov 20)	2	0	
1814 (Sep 20)	1	0	
1815 (Aug 9)	3	0	
1816 (Mar 3)	1	0	
1816 (Sep 21)	1	0	
1816 (Oct 24)	2	0	
1817 (Mar 6)	2	0	
1817 (Apr 26)	1	0	
1817 (?)	3	0	
1819 (Feb 8)	1	1	
1819 (Jul 29)	1	0	
1819 (Jul 30)	4	0	
1819 (Aug 4)	1	0	
1819 (Aug 17)	5	0	
1820 (May 17)	1	0	
1821 (Oct 5)	2	1	
1833 (Dec 10)	1	0	
b. Region			
1763 (Apr 6)	1	3	(Dzidzantun)
1781 (Jun 19)	1	8	(Dzidzantun)
1782 (Aug 20)	3	0	(unspecified)
1790 (May 25)	6	0	(Izamal)
1792 (Dec 16)	3	7	(Izamal)
1794 (May 18)	3	1	(unspecified)
1798 (Mar 6)	6	1	(Izamal)
1798 (Mar 12)	3	0	(Izamal)
1799 (Aug 11)	1	2	(Izamal)
1805 (Jul 30)	1	7	(Tixkochoh)
1805 (Sep 18)	1	1	(Cacalchen)
1812 (Jan 14)	4	8	(Xocchel)
1813 (Feb 15)	2	16	(Nolo)

In 1749, the same notary recorded two additional testaments with one example each of *ley* in identical phrases:

- (57) *ley* bin toci y n pixan ti v lobol balob
 ‘this will defend my soul against evil things’ (TK749D)

Neither document has any examples of *lay* or its variants.

There are no more examples of *ley* or *lei* in documents originating in Tekanto during the rest of the eighteenth century. However, notaries in other towns in the hinterland of Tekanto were producing documents with *ley* or *le*, beginning in 1763 in Dzidzantun:

- (58) *le* yan t u lakin y otoch Josefa Miranda *lae*
 ‘this exists east of the home of Josefa Miranda’ (KAN763A)

As in the documents from 1743 produced in Tekanto, this example was in the minority, contrasting with three examples of *lay* elsewhere in the document.

ley showed up again in Dzidzantun in a document dating to 1781:

- (59) mex hun-hun tul ti *ley*ob
 ‘nor each of these’ (KAN781A)

Here, too, *lay* was dominant, showing up in eight phrases.

One year later, a testament was produced in a town in the hinterland of Tekanto with three examples of *ley* and no examples of *lay*:

- (60a) *ley* oclal c in mentic y n tokyah than
 ‘this is the reason I make my testament’ (KAN782A)
- (60b) *ley* oclal c in mentic y n than
 ‘this is the reason I make my words’ (KAN782A)
- (60c) *ley* oclal maa=mac vchac v conic y xane
 ‘this is the reason no one may sell it either’ (KAN782A)

The spread of *ley* at the expense of *lay* continued during the 1790s in the hinterland of Tekanto, beginning in 1790 with a land document crafted in Izamal with six examples of *ley* (or *lei* or *le*) and no examples of *lay*:

- (61a) hoki *lei* seniyor Matias Duran v tial v manee
 ‘this Señor Matias Duran left in order to pass’ (KAN790B)
- (61b) he yx *lei* solar c in jaic *lae*
 ‘and here is this house plot that I give’ (KAN790B)
- (61c) *lei* solar *lae*
 ‘as for this house plot’ (KAN790B)

- (61d) ley solar lae
'as for this house plot' (KAN790B)
- (61e) ho t u kal yani le solar lae
'25 are these house plots' (KAN790B)
- (61f) menchahi v hunil lei conol lae
'the papers for this sale were prepared' (KAN790B)

And another land document also originating in Izamal, but dated to 1798, has three examples of lei and no examples of lay:

- (62a) he ix lei chun lae
'and this stump here' (KAN798B)
- (62b) lei kax c u conic lae
'this forest that he sells' (KAN798B)
- (62c) lei u hahil ca firma yalan u hunil
'this is the truth that we certify at the bottom of the letter' (KAN798B)

Finally, three more documents from Izamal bearing dates in the last decade of the eighteenth century contain examples of both lei and lay. One was written in 1792 and has three examples of lei:

- (63a) ox pel peso t u kamah lei al=mehen Alonso Chi lae
'three coins did this noble Alonso Chi receive' (KAN792B)
- (63b) he ix lei solar lae cunpul
'and here is this house plot: Cunpul' (KAN792B)
- (63c) he yix lei kax lae cunpul'
'and here is this forest: Cunpul' (KAN792B)

It contains seven examples of lay. Another dated to 1798, has six examples of lei:

- (64a) y u hel u hunil lei kax lae
'and another document of this forest' (KAN798A)
- (64b) he ix lei cheen lae
'and here is this well!' (KAN798A)
- (64c) la u nukul ca mentic u hunil y oklal u conic u yumil lei kax lae
'this is the reason we prepare the document for the owner of this forest to sell it' (KAN798A)
- (64d) he ix lei kax lae
'and here is this forest!' (KAN798A)

(64e) he ix lei kax c u conic lae
 'and here is this forest that he sells' (KAN798A)

(64f) lei u hahil
 'this is the truth' (KAN798A)

It has one example of la, in (64c). The third has a date of 1799:

(65) he ix lei solar kubic lae
 'and here is this house plot that he gives' (KAN799A)

There are also one example of lay and another of lai in this document.

By 1804, there were once again examples of ley (or le) in a document originating in Izamal:

(66a) he ix tux yan le solar lae
 'and here is where this house plot exists' (KAN804A)

(66b) he ix yan ychil ley solar lae
 'and here it exists within this house plot' (KAN804A)

(66c) minan v than y oklal ley solar lae
 'there is no word about this house plot' (KAN804A)

(66d) le v nukul t u kubah ti in kab
 'this is the reason why he delivered it into my hands' (KAN804A)

(66e) le v hahil c in caic yn firma yalan caba(l)
 'this is the truth that I certify below' (KAN804A)

In contrast to these five examples of ley or le, there is only one example of lay (as la) in this document.

In a land document dated to 1808 from Tekanto, there were four examples of ley or le and no examples of lay:

(67a) cooc tun yn manic le v tial yn lakobie
 'I finished buying this one for my companions' (TK808A)

(67b) c in tuliscuntic hun ac le solar yn tialil
 'I complete one lot of this house plot of mine' (TK808A)

(67c) ley v hahil
 'this is the truth' (TK808A)

(67d) he solar lae le yn cahlic vay lae
 'the house plot here, this is my residence in here' (TK808A)

In addition, fourteen documents from Tekanto and the second decade of the nineteenth century have examples of *ley* or *le*, but none of *lay* (Table 15-2). For example, a document written in 1819 had five examples of *le*:

- (68a) c in kalic le u hunil
'I close this letter' (TK819C)
- (68b) he ix le kax lae
'and here is this forest' (TK819C)
- (68c) ca pel kal tun yani le u pic=tunil u kax ah bokoba
'there are 40 stones in this boundary marker of the forest of the people of Bokoba' (TK819C)
- (68d) le c u haltic u pic=tunil u kax Christoval Ku
'this one passes the boundary marker of the forest of Christobal Ku' (TK819C)
- (68e) le t in conah lae
'this is what I purchased' (TK819C)

Table 15-2 shows that other towns in the vicinity of Tekanto produced documents during the same decades with a mixture of phrases and sentences containing variants of *ley* and *lay*. For example, a document written in Xocché in 1812 contained four instances of *ley* and eight of *lay*; both *ley* and *lay* appeared in the following sentence:

- (69a) ley tun sut u hel lay ox pel pesoe
'this one, then, returned the other of these three coins' (KAN812E)

The rest of the sentences or phrases containing *ley* are given below:

- (69b) ley yx mehen Leonarda Puc
'this daughter Leonarda Puc' (KAN812E)
- (69c) ca t u conah ley tun Salvador Puce
'and Salvador Puc sold this then' (KAN812E)
- (69d) ley u nohol c u binel
'this one goes to the south' (KAN812E)

And, of course, a large number of documents not listed in Table 15-2 had only *lay* or its variants, *lai* and *la*. Nevertheless, the fact that several notaries in Tekanto and its hinterland produced documents only with *ley* and its variants is evidence that *ley* was well on the road to replacing *lay* between 1780 and 1833 in that region, in contrast to Ebtun, where only two documents during that period had examples of *ley* without also examples of *lay*.³

Apart from its persistence in láayli? ...e? 'still, even, now, yet' in the Puuc region today (see 2.3. in Chapter 4), *lay* itself continued to be used in a few expressions as recently as the 1930s in Tixcacal Guardia in the southeastern part of the peninsula (now the state of Quintana Roo):

- (70a) lay hun peel carta
'this one letter' (TIX935B, TIX935G; TIX936B)
- (70b) la betiic inv alic ti tex
'this is what I say to you-all' (TIX935J, TIX935K, TIX935L)
- (70c) lay hunna t u noh u kab ser gepee
'this letter in the right hand of Mr. Chief' (TIX936A)

These examples come from letters addressed to the archaeologist, Sylvanus G. Morley, who was working at the Maya ruins of Chichen Itza during the 1930s (Sullivan 1989). le served as the demonstrative pronoun in other phrases and sentences in those letters, as well as in other letters sent to Morley during those years, and it is now the only form of the demonstrative pronoun used in the Yucatan peninsula today.

The history of the shift of bay 'as, likewise, thus' to bey parallels that of the shift of lay to ley. It, too, begins in Ebtun, but in 1711, more than three decades later than the first appearance of ley in that town:

- (71) bey ah tepal lae
'likewise the ruler' (EBT711B)

The next example of bey (as bei) appeared more than seventy years later in 1784 in a land document:

- (72) bei xan he ix u nukul c sihsic lay hun lae
'thus also, and here is the reason why we created this document' (EBT784A)

This document contained two sentences with ley and one with lei that are given in (49a–c) above. However, there are also seven examples of bay xan and eight examples of lay in that letter, suggesting that bey and ley were in free variation with bay and lay at that time.

A few years later, in 1792, bey appeared in another land document:

- (73) bey uac ppel bara t u nohol v chun cruz
'likewise six rods south of the base of the cross' (EBT792A)

There were also five examples of bay and one example of lay in this document, but no examples of ley or its variants, which implies that neither bey nor ley had a strong presence in Ebtun during the eighteenth century.

The same is true of Ebtun during the first three decades of the nineteenth century;⁴ the only evidence of bey during that period appeared in a document written in 1822:

- (74) bey tuno hecen cheob c u ichchancile
'thus then, those trees that bear fruit' (EBT822C)

bey (or bei) first appeared in the documentary record in Tekanto in 1752, thirteen years after the first appearance of ley:

- (75a) bei ti Ambrocio Pol
'likewise to Ambrocio Pol' (TK752F-108A)

- (75b) bei tun yn ɔaɪc ti yn mehen Ju° Pol
 ‘thus then, I give it to my son, Juan Pol’ (TK752F-199A-B)

These are the only examples of *bey* or *bei* from Tekanto during the eighteenth century. However, in 1782, a town in the hinterland of Tekanto produced a document containing, in addition to the three instances of *ley* illustrated in (60a–c), nine instances of *bey*:

- (76a) bey bic he tene t u mascab ca yumil ti dios yanene
 ‘thus how I here, I am in the armor of our Lord who is God’ (KAN782A)
- (76b) bey bic tan ynu uyic bicil chiñy yn kohanil
 ‘thus how I am perceiving how strong my illness is’ (KAN782A)
- (76c) bey bic v mul tiallobe
 ‘thus how common it is’ (KAN782A)
- (76d) bey bic tan yn toh olal ca t i(n) kubah v hunil v solar
 ‘thus how happy I was when I delivered the document for the house plot’ (KAN782A)
- (76e) bey xan t u lalac hecex yn pakalobe
 ‘thus also, all those plantings of mine’ (KAN782A)
- (76f) bey ci bey ya bey abal v mul=tzentic u baob
 ‘thus sweets, thus sapotes, thus plums are what they collect to feed themselves’ (KAN782A)
- (76g) bey xan t in kubah hun pet solar ti
 ‘thus also, I delivered one house plot to him’ (KAN782A)
- (76h) bey xan t in kubah hun pet lum ti ynu ix mehen
 ‘thus also, I delivered one plot of land to my daughter’ (KAN782A)
- (76i) bey xan t in kubah hun pet lum ti yn mehen Gregorio Flota
 ‘thus also, I delivered one plot of land to my son, Gregorio Flota’ (KAN782A)

Furthermore, neither *bay* nor *lay* was present in this document. In other words, the notary who wrote the document had apparently completely accepted the *bey* and *ley* spellings of these words.

A similar pattern can be documented for Tekanto and its hinterland during the first two decades of the nineteenth century. Sentences containing examples of *bey* and *bei* (but not *bay*) appear in a document written in 1804:

- (77a) bey bic yn mul nun=ya y v nae
 ‘thus how I suffer with his house’ (KAN804A)
- (77b) bei ytzmal coot v pach t u lalac
 ‘Izamal is completely surrounded by a wall like this’ (KAN804A)

The five sentences in this document with *ley* are shown in (66a–e). Likewise a document written in 1808 has, in addition to the four examples of *ley* illustrated in (67a–d), one example of *bey*:

- (78) *bey* tun hele la tune
 ‘thus, then, today then’ (TK808A)

There are no examples of *bay* in this document.

A document originating in Xocché in 1812 had, in addition to the four examples of *ley* shown in (69a–d), two examples of *bey*:

- (79a) *bey* xan Felipa Couoh cimen
 ‘thus also, Felipa Couoh, who is deceased’ (KAN812E)
- (79b) *bey* xan Pedro Couoh cimen xan
 ‘thus also, Pedro Couoh, who is also deceased’ (KAN812E)

There are no examples of *bay* in this document either.

Another document, this time originating in Tekanto in 1819, had one example of *bey*:

- (80) *bey* talajanilen lae
 ‘thus I have come’ (TK819C)

The same document had five instances of *ley* (68a–e) and one of *bay*.

From Yobain in the hinterland of Tekanto comes a document dated to 1825 with two instances of *bey* in the same sentence:

- (81a) *bey bey* bic ma inv ohel cibe
 ‘thus, as I do not know how to write like this’ (KAN825B)

No examples of *bay* or *ley* occur in this document, but there is one example of *leyli* ... e:

- (81b) *leyli* v chucan in kax lae
 ‘now my forest is complete’ (KAN825B)

Thus, in Tekanto and its hinterland during the late eighteenth and early nineteenth centuries, there were notaries who employed only *ley* and *bey* in the documents they wrote, but others also included *lay* and *bay* in their writings. Although both *ley* and *bey* appeared first in provenienced documents from Ebtun, no notaries in that town used them as consistently as some notaries did in Tekanto and nearby towns.

The Xiu Chronicles or Libro de Probanzas (n.d.; Quezada and Okoshi Harada 2001) from the southern part of the modern state of Yucatan present a very different picture of what happened to *lay* and *bay* during the eighteenth century and the first part of the nineteenth. The 52 documents in this collection span the period from 1608 to 1817. According to Alfred M. Tozzer (1921:204), “[t]his collection contains petitions and evidences and decrees certifying the lordship of the heads of the Xiu family established near Oxkutzcab.” As such, the Chronicles contain documents emanating from both Merida in the north and Oxkutzcab and its neighbors in the south.

The documents coming from Merida were attributed to bilingual men with Spanish surnames called ah tzol than ‘general interpreters,’ who must have been the ones who translated them from Spanish into Maya. In 1759, the first examples of *ley* and *lei* appeared in documents penned by Pedro Servera in Merida:

- (82a) *lei* t u men ca noh ahau
‘this because of our great ruler’ (XIU759B)
- (82b) y oklal *ley* u libroil pr...bansas
‘because this is the book of evidences’ (XIU759B)
- (82c) y *ley* petition yan canala
‘with this petition that is above’ (XIU759B)
- (82d) y t uy alah ca tacunchahac ti *ley* katanaloba t u lalal *ley* tziculob
‘and he said that these petitions and all these privileges should be protected’ (XIU759B)
- (82e) t u lalal *ley* tziculob v...ben u tacunchahalob ti y oklal ydalgoob
‘all these ancient privileges should be protected because they are nobles’ (XIU759B)
- (82f) ua ma chen *ley* u tial ...
‘if not only this for ...’ (XIU759B)

There are no examples of *lay* or *lai* in this document, but there is one example of *bay*.

The first examples of *bey* appeared in 1793 in a document for which Esteban de Castro served as general interpreter:

- (83a) ‘t u lalal *ley* cabilah payben tiob *bey* bic ydalgoobe
‘all these antecedent grants to them as nobles’ (XIU793B)
- (83b) *bey* t uy ala ca t u ca u firma
‘thus he said and certified’ (XIU793B)

There are no examples of *bay* or *lay* in this document, but there are four examples of *ley* (including the one in [83a]):

- (84a) ti *ley* prov.^a lae
‘in this province’ (XIU793B)
- (84b) ca tu ...llila *ley* u libroil provanzas y *ley* kata...cal yan tanilo[b]e
‘upon seeing this book of evidences and this petition that was before them’ (XIU793B)

On the other hand, none of the documents in the Xiu Chronicles that were produced by notaries in Oxkutzcab and nearby towns contained examples of *ley* or *bey*. In every case, they used *lay* and *bay* or their variants, *lai* and *bai*. Obviously, the men who were responsible for producing official documents in Merida were using the forms of these initial deictic particles that were common in the northwestern corner of the peninsula as a standard while notaries in the south were still using the earlier forms.

The other large collection of Maya documents from the Puuc region—the Hacienda Tabi papers—is similarly deficient in examples of *ley* and *bey*. Only three documents in that collection have examples of *ley*. The earliest one, from Oxkutzcab, was written in 1772:

- (85a) *lay* u chun betah *ley* carta de benta *lae*
 ‘this is the reason he made this bill of sale’ (OX772-020A-B)
- (85b) *ley* t u men c u cabal *ley* carta de benta ti *lae*
 ‘this is because this bill of sale is given to him’ (OX772-015A-B)
- (85c) bicil jocan y etel u hunnil *ley* kax *lae*
 ‘how it ended with the document of this forest’ (OX772-018A-C)
- (85d) *ley* oklal mu cabac u carta de bental ti
 ‘for this reason the bill of sale will not be given to him’ (OX772-013A-B)

There are three examples of *lay* in this document (including the one in [85a]) and none of *bey*.

The other two documents were written in 1791, one in Dzan and the other in Pustunich. The example in the Dzan document is given below:

- (86) *ley lae* h conic y oklal lahu ca kal peso taknil
 ‘as for this one, we sell it for 50 monetary coins’ (DZ791A-005A-C)

There are also four examples of *lay* in this document, but none of *bey*.

The document from Pustunich contains two examples of *ley*:

- (87a) ca t con v xethel *ley* kax tie
 ‘that we might sell the piece of this forest to him’ (PS791A-008A-B)
- (87b) *ley* t u men c conic ti ua ti cule
 ‘this because if we sell it to this Spaniard’ (PS791A-010A-B)

It also has three examples of *lay* (but none of *bey*).

It seems that *lay* and *bay* persisted longer in the Puuc region than elsewhere in the Yucatan peninsula. This may be why *láayli?* ... *e?* has survived in this region and nowhere else (see **2.3.** in Chapter 4).

Thus, the history of the shift from *lay* to *ley* began in Ebtun in 1675. Then it moved westward, showing up for the first time in Tekanto in 1739, in Merida by 1759, and in Dzan in the south by 1772. The shift from *bay* to *bey* followed a similar course, perhaps spurred on by the gradual change from *lay* to *ley*. It began in Ebtun in 1711, moving to Tekanto by 1752, and to Merida by 1793. There are no examples of *bey* in the most recent documents I have from the Puuc region (from Chapab and Pustunich), which are dated to 1812 and 1813. The shift from *bay* to *bey* must have happened sometime between 1813 and 1971, when I recorded the following examples of *b’eyo?* and *b’ey* ... *o?* in a story about the Caste War recounted by a native speaker from Pencuyut in that region:

- (88a) *ǵ’* u máan k’iin *b’eyo?* ?úuǵk e b’á?aló?ob’ *b’eyo?*
 ‘time finished passing like that since those things happened like that’ (PEN971:7)

- (88b) le káʔah ʔúúčeʔ le le letíʔeʔ u b'isáʔalóʔob' b'ey u tyáʔal séerbirsyo k uy áʔáláʔaloʔ
 'when it happened that they were recruited like that for what is called military service' (PEN971:7)

Although the general pattern is one of lay shifting to ley before bey began competing with bay in much of the peninsula, there is at least one town in which the shift occurred in the opposite direction. That town was Hocaba, which lies about 30 kilometers southwest of Tekanto, 45 kilometers southeast of Merida, and 60 kilometers north of the Puuc region (Figure 1-1). The evidence comes from the book maintained by the *cofradía* in Hocaba between 1769 and 1784. The *cofradía* was a religious brotherhood or sodality that was responsible for carrying out rituals and festivals in honor of the patron saint of a community. It had its own agricultural land, from which it derived income. Expenses pertaining to the activities of the *cofradía* were recorded in this book and certified by notaries, thereby providing a detailed record of the use of lay, ley, bay, and bey over a period of ca. 15 years.

The *cofradía* book is not in good condition, and portions of some pages are no longer legible. However, enough remains of the text and the names of the notaries to indicate that bey was well established as an alternative to bay some years before ley appeared as an alternative to lay in Hocaba.

In all, 23 examples of bey are legible in the *cofradía* book (in every case in the expression, bey xan 'thus also'): five each in 1770 and 1772, four in 1773, one in 1777, four in 1779, and four in an undated context. Examples from each of those years appear below:

- (89a) bey xan c in hahcunic ca pel p^s
 'thus also, I verify two pesos' (1770)
- (89b) bey xan c in hahcunic lay takin lae
 'thus also, I verify this money' (1772)
- (89c) bey xan hun tumin t in manah taman
 'thus also, with one coin I bought cotton' (1773)
- (89d) bey xan k ilah u taknil u kab ley cab lae 2 ps f
 'thus also, we saw the money for this honey: 2 pesos' (1777)
- (89e) bey xan ca pel botijuela cab tin kubah
 'thus also, two small jars of honey that I delivered' (1779)
- (89f) bey xan c in hahcunic buluc pis tumin yala takin lae
 'thus also, I verified eleven coins is the rest of this money' (undated)

(89d) is of special interest because it contains examples of both bey and ley dated to 1777. The first examples of ley appeared in 1776, six years after the first appearance of bey in the *cofradía* book:

- (90a) c in hahcuntic ley v takin ca yum Anipros lae
 'I verify this money of our father Ambrose' (1776)
- (90b) ley jiban ychil libro lae
 'this is written in the book' (1776)

Six examples of *ley* are documented for 1777 and five for 1779, of which the following are representative:

- (90c) *ley* tun yn yum cura Dn Antto Ramon *lae*
 ‘this then, my father curate Don Antonio Ramon’ (1777)
- (90d) *ley* bin ylac t u kinil t u tanil mayordomosob *ley lae*
 ‘this will be seen on the day before the stewards, who are these’ (1779)

There was no turnover in the members of the *cofradía* whose names are mentioned in the book, nor in the notaries who certified them, suggesting that *bey* really did appear before *ley*.

On the other hand, although *ley* also appeared for the first time in 1776 in a series of documents spanning the years 1744 to 1789 from Tahmek, a town only six kilometers north of Hocaba (Figure 1-1), *bey* is not attested at all in the 13 dated documents from that town. There is one document in the collection that has three instances of *bey*; whether it was contemporaneous with the others or was produced later in time cannot be ascertained because it is undated. The spotty distribution of *ley* and *bey* in towns that were (and still are) only a few kilometers apart and within easy walking distance of each other is evidence that the spread of the /e/-medial forms of these deictics during those decades was not uniform and that they were not readily accepted either within or between neighboring towns.

The shift of way to wey in Hocaba seems to be a more recent development because, as of the 1990s, when I and my co-authors were still working on our dictionary, wey was simply an occasional variant of way (V. Bricker et al. 1998:84, 118, 153, 180, 301). It is, nevertheless, the last of the three initial deictics in which the medial vowel /a/ preceding /y/ is being raised to /e/.

Thus, the shift from *lay* to *ley*, *bay* to *bey*, and *way* to *wey* involves two vowels, *ai* or *ay*, becoming *ei* or *ey*. In this context, low vowel /a/ is raised to a mid front vowel [e]. This raising can be viewed as a type of vowel assimilation, because the derived vowel [e] becomes a front vowel like /i/, a high front vowel.⁵

2.4.2. RETENTION OF /L/ IN TERMINAL DEICTICS THAT IMMEDIATELY FOLLOW INITIAL DEICTICS ENDING IN A LARYNGEAL CONSONANT. The Calepino de Motul contains evidence that *lay* and *lai* are variants of the initial deictic *la*:

- (91) *la* bin a čhab *la*
 ‘this is what you will take’ (Ciudad Real 1600?:fol. 255v)

la survives today in *la?* lo? ‘the’ in Itsaj (Hofling and Tesucún 1997:405) and in *la?* eh ‘that one’ in San Quintin Lacandon (Canger 1995), suggesting that it was phonetic [la?] in Colonial Yucatec. It is therefore likely that, because *le* is historically derived from *la*, it also ended in a glottal stop: [le?].

Although, in order to reduce the consonant clusters resulting from placing the proximal and distal terminal deictics, *la* and *lo* (phonetic [la?] and [lo?]), after words ending in consonants, the initial /l/ consonant in these deictics was gradually eliminated over time (cf. 1.3. above), there is one set of contexts in which it has been retained in Modern Yucatec, namely when the terminal deictics immediately follow an initial deictic ending in a laryngeal. In such cases, the consonant clusters resulting from the concatenation of initial with terminal deictics are handled in one of two ways: (1) by inserting a copy of the vowel in the initial deictic between the two consonants (e.g., [92a–b] below) or (2) by deleting the laryngeal consonant at the end of the initial deictic (e.g., [92c–d] below). The example sentences documenting these adjustments in Modern Yucatec already given in this chapter are flagged by number in the fourth column of (92a–d):

	<u>Input</u>	<u>Output</u>	<u>Gloss</u>	<u>Examples</u>
(92a)	heʔ laʔ	héʔe laʔ	here it is	(29b)
	heʔ loʔ	héʔe loʔ	there it is	(29c)
(92b)	téʔ laʔ	téʔe laʔ	right here, here	(34b)
	téʔ loʔ	téʔe loʔ	there	(34d)
(92c)	leʔ laʔ	le_ laʔ	this one	(31a)
	leʔ loʔ	le_ loʔ	that one	(31c)
(92d)	toʔ loʔ	to_ loʔ	(out) there	(36b)

When the initial deictic does not end in a laryngeal, /l/ is deleted, thus:

	<u>Input</u>	<u>Output</u>	<u>Gloss</u>	<u>Examples</u>
(93a)	b'ey laʔ	b'ey_aʔ	like this	(28b)
	b'ey loʔ	b'ey_oʔ	like that	(28d)

3. SUMMARY OF CHANGES IN DEICTIC PARTICLES THROUGH TIME

The principal changes that have taken place in deictic particles since the sixteenth century involve the reduction of the terminal deictics, la and lo, to aʔ and oʔ, respectively, and the raising of medial /a/ before final /y/ in initial deictics (bay, lay, uay) to /e/ (b'ey, ley, wey). The second set of changes began during the second half of the seventeenth century and are still in progress today, the replacement of way by wey already completed in some towns but not others.

NOTES

- During a visit to Yucatan in 1979, while I was living in Ebtun, my colleague, Munro Edmonson, observed that the Maya who populated the region around Merida (e.g., in Hocaba and Telchaquillo) seemed to use these demonstrative pronouns more often than the Maya in the region around Valladolid (e.g., in Ebtun and Chan Kom), where letíʔ 'this one' and le héʔelaʔ 'the one here' seemed to have the same function as le laʔ (V. Bricker 1979a:112,115).
- Although only rarely represented orthographically, the vowel hiatus resulting from the concatenation of phonetic [laʔ] and [loʔ] with [eʔ] was resolved by inserting a glide between [aʔ] or [oʔ] and [eʔ]:
 - bal oc laie
'what does this mean?' (Ciudad Real 1600?:fol. 46v)
 - he oc laye
'this means ...' (Ciudad Real 1600?:fol. 340v)
 - ma tun v ɔa tac hele laye
'then he does not give it even today' (XOC782)

(d) bal oc t a vayil tñanex loie

‘what does that mean in your language here?’ (Ciudad Real 1600?:fol. 340v)

(e) hi=mac yacunic y etel ɔaɪc v ba t u pec=oltzilil babale ah ɟatal loye

‘whoever loves and exposes himself to dangerous things, he will perish in that!’ (Ciudad Real 1600?:fol. 371r)

3. The Book of Chilam Balam of Tizimin has 21 examples of lei, 103 examples of lai, and 2 examples of lay (V. Bricker 1990b:224–227), which is consistent with the late eighteenth-century date of the surviving version of the manuscript. (The Book of Chilam Balam of Chumayel has 308 examples of lay and no examples of lei or ley [V. Bricker 1990a:297–302].)
4. There is one example of bey in a document originating in Ebtun in 1840 that is not part of the Titles of Ebtun:

bey xan c uy alic D.ⁿ Lusiano Denis

‘thus also, Don Luciano Denis says it’

However, neither ley nor lay nor any of their variants appears in this document.

5. This ai combination change to ei was not a global change in the grammar. It was triggered only in the deixis domain. Nor was there a parallel change of au combinations to ou in the grammar. I am aware of only two such changes, namely from Colonial Yucatec chauac ‘long’ and chacau ‘hot, warm’ to čowak ‘long’ and čokow ‘hot, warm’ in Modern Yucatec.

CHAPTER 16

SYNTAX AND DISCOURSE

Chapters 4 through 15 have dealt with the morphological structures of Colonial and Modern Yucatec that underlie the syntax and discourse patterns in this language. Among the topics considered in this chapter are the Basic Word Order and the departures from it, especially several kinds of focused constructions and topicalization, and their functions in discourse.

My analysis of syntactic examples from Colonial and Modern Yucatec is represented in two ways: first by a line of the Maya text with the morpheme boundaries indicated by hyphens, equal signs, and juncture, followed by a line of text with the roots glossed in English and the prefixes, suffixes, clitics, and enclitics labelled in terms of their function (Table 16-1). They, in turn, are followed by a free translation of the examples in English (explanatory notes appear between square brackets, if necessary).

1. BASIC WORD ORDER

The Basic Word Order in both Colonial and Modern Yucatec is Verb-Object-Subject in transitive clauses and Verb-Subject in intransitive clauses. However, as already explained in **1.1.** and **5.1.** in Chapter 5, both dialects of the language have a split ergative pattern of pronominal inflection, and it would be more accurate to describe the Basic Word Order of transitive clauses as Verb-Patient-Agent.

Table 16-1. Abbreviation conventions.

abstr	abstractive	imper	imperative	pperf	present perfect
ag	agentive	impf	imperfective	prep	preposition
aj	adjectival	inch	inchoative	prox	proximal
ap	antipassive	interrog	interrogative	ps	passivizer
clas	classifier	masc	masculine classifier	rel	relative pronoun
caus	causativizer	nc	numeral classifier	sg	singular
defut	definite future	nom	nominal	subj	subjunctive
det	determiner	partic	participle	top	topicalizer
dist	distal	partit	partitive	trans	transitivizer
dstpl	distributive plural	perf	perfective	usat	usative
dubit	dubitative	pl	plural	voc	vocative
encl	enclitic	pos	positional		
fem	feminine classifier	pot	potential		

1.1. BASIC WORD ORDER IN TRANSITIVE CLAUSES. An example of the use of both nominal arguments in Colonial Yucatec appears below:

- (1) tan u-ɔa-ic-Ø u-han-al-ob hal-ach vinic
 durative 3sg-give-impf-3sg 3sg-food-nom-3pl truth-aj person
 ‘the chief is giving them their food’ (Gordon 1913:38)

However, such sentences are rare in Maya discourse. Once the nominal agent and patient have been specified, only one of them is usually mentioned, as in the following example that directly follows the one quoted in (1):

- (2) tan-ix v-kat-ic-Ø v-han-al ti-ob xan
 durative-and 3sg-request-impf-3sg 3sg-food-nom prep-3pl also
 ‘and he requests their food from them too’ (Gordon 1913:38)

In this case, only the nominal patient of the verb is mentioned, not the nominal agent, but the noun is followed by an indirect object marked by the third-person plural suffix on the preposition, a contraction of *ti letiob* ‘from them.’

In the next example, the indirect object, *ton* ‘to us,’ appears directly after the transitive verb, *ɔa* ‘to give,’ instead of following the direct object, in this case the nominal phrase, *u yabal lob* ‘much harm,’ suggesting that the placement of the indirect object is variable:

- (3) ca t-hop-i-Ø u ɔa-ic-Ø ton u-yab-al lob
 and completive-begin-perf-3sg 3sg-give-impf-3sg to-us 3sg-much-nom harm
 ‘and he began to give us much harm’ (HB784C-207D-E)

The Calepino de Motul contains another example of a transitive verb followed by a nominal patient:

- (4) bin a-ppo-Ø-ob a-nok çamal
 future 2sg-wash-subj-3pl 2sg-clothes tomorrow
 ‘you will wash your clothes tomorrow’ (Ciudad Real 1600?: fol. 257v)

In this case, the noun is followed by the adverbial particle, *çamal* ‘tomorrow.’ Adverbs appear at the end of clauses in the Basic Word Order in Colonial and Modern Yucatec.

The nominal patient in another transitive clause is followed by a deictic enclitic:

- (5) ma v-teel a-çha-ic-Ø v-hel huun-la
 not 3sg-benefit 2sg-take-impf-3sg 3sg-other letter-prox
 ‘it is not necessary that you take a reply to this letter’ (Ciudad Real 1600?: fol. 452r)

Nominal agents may also appear alone in transitive clauses:

- (6) v-key-ah-en batab
 3sg-scold-perf-1sg leader
 ‘the leader scolded me’ (Ciudad Real 1600?: fol. 244r)

Whenever nouns representing both the patient and the agent co-occur with the transitive verb in the Basic Word Order, it is understood that the first noun that follows the verb is the patient, and the second is the agent. However, when only one nominal argument is represented in a transitive clause, and the verb is inflected with both third-person prefix and suffix, then it may not be clear whether the single nominal argument refers to the agent or the patient. This is the case in (2), but there the noun refers to an inanimate object (hanal 'food'), whereas the verb (kat 'to request') implies an animate agent. Therefore, the single noun that follows the noun must refer to the patient, not the agent.

The manifestations of the Basic Word Order in Modern Yucatec are similar to those in Colonial Yucatec. The example in (7) contains the nominal agent (h-pèedroh) and patient (b'á?al), as well as an indirect object (ten):

- (7) t-uy-á?al-ah-Ø ten b'á?al h-pèedroh
 completive-3sg-say-perf-3sg to-me thing masc-Peter
 'Peter offended me [literally, Peter said something to me]' (V. Bricker et al. 1998:4)

The agent is missing in the next example, but the single noun refers to an inanimate object (tàak'in 'money') after a verb that implies an agent (ç'a 'to give'), indicating that the stated noun is the patient, not the agent, of the clause:

- (8) táan u-ç'a-ik-Ø ten tàak'in
 durative 3sg-give-impf-3sg to-me money
 'he is giving me money' (V. Bricker et al. 1998:47)

As in Colonial Yucatec, the placement of the indirect object is not limited to the position directly after the transitive verb, but can also follow the nominal patient (in this case in a deictic le ... a? frame):

- (9) yan im-bis-ik-Ø le b'á?al-a? tí? im-papah
 compulsive 1sg-take-impf-3sg det thing-prox prep 1sg-father
 'I must take this thing to my father' (Blair and Vermont-Salas 1965:93)

The following minimal pair documents the variable placement of the indirect object in Modern Yucatec (Blair and Vermont-Salas 1965:155):

- (10a) t-u-n çol-ik-Ø wá-b'á?aš tí? le š-č'úup-al-o?
 durative-3sg explain-impf-3sg some-thing to det fem-girl-nom-dist
 'he's explaining something to that girl'
- (10b) t-u-n çol-ik-Ø tí? le š-č'úup-al-o? wá-b'á?aš
 durative-3sg explain-impf-3sg to det fem-girl-nom-dist some-thing
 'he's explaining something to that girl'

And the next example illustrates the placement of a temporal adverb (b'e=h[e]lá?e? 'today') at the end of a transitive clause:

- (11) t-in-hàan-t-ah-Ø hum p'éel š-b'ú?ul-i? k'é?ek'en b'e=h(e)l-á?-e?
 completive-1sg-food-trans-perf-3sg one-thing clas-bean-? pig thus=today-prox-encl
 'I ate one serving of pork and beans today' (V. Bricker et al. 1998:48)

1.2. BASIC WORD ORDER IN INTRANSITIVE CLAUSES. The following clause contains the intransitive root, *ah* 'to awaken,' followed by the nominal subject, *cab* 'earth':

- (12) *ca tun ah-i-Ø cab*
 and then awaken-perf-3sg earth
 'and then the earth awakened' (Gordon 1913:244)

The noun is followed by a temporal adverb in the next clause:

- (13) *bin-Ø-Ø v-sucun-ob vch-i*
 go-perf-3sg 3sg-older brother-3pl happen-perf
 'their older brothers went long ago' (DZ651B-110)

The same Basic Word Order occurs in Modern Yucatec. The nominal subject follows the intransitive verb below:

- (14) *č'-uy-ah-al aw-ič'in*
 terminative-3sg-awaken-impf 2sg-younger sibling
 'your brother has woken up' (Blair and Vermont-Salas 1965:93)

In the next example, the nominal subject appears in a deictic frame:

- (15) *č'óʔok u-hóok'-ol u-t'àan le čan š-č'úup-al-oʔ*
 terminative 3sg-emerge-impf 3sg-word det little fem-girl-nom-dist
 'that little girl has learned how to talk [literally, the words of that little girl have come out]' (V. Bricker et al. 1998:109)

A verb of motion may be followed by a noun specifying a destination:

- (16) *k-u b'in-Ø šóokempiič le b'eh héʔel-aʔ*
 incomplete-3sg-go-impf destination det road demonstrative-prox
 'does this road go to Xocempich?' (Blair and Vermont-Salas 1965:275)

The same Basic Word Order, Verb-Subject, characterizes clauses containing passive and antipassive verbs. Because mediopassive verbs take the same inflectional affixes as root intransitives, they will not be discussed further here.

1.2.1. BASIC WORD ORDER IN PASSIVE CLAUSES. When a transitive verb is passivized, the former patient becomes the subject of the passive verb, and the former agent may be moved into a prepositional phrase after the subject. This word order is illustrated by the following examples in Colonial Yucatec:

- (17a) *haatz-i-Ø v-baal v-ba ca-yum t-u-men justicia*
 be divided-perf-3sg 3sg-thing 3sg-self 1pl-father prep-3sg-deed justice
 'the estate of our father was divided by the court' (Ciudad Real 1600?: fol. 205r)

- (17b) ti paax-i-Ø in-pol t-u-men Juan
 completive be broken-perf-3sg 1sg-head prep-3sg-deed John
 'my head was broken by John' (Ciudad Real 1600?: fol. 369r)
- (17c) paay-i-Ø v-cux-tal in-yum t-u-men Dios
 be called-perf-3sg 3sg-life-pos 1sg-father prep-3sg-deed God
 'my father's life was called by God [i.e., he died]' (Ciudad Real 1600?: fol. 360r)
- (17d) he tun t-u-hopp-ol v-piç-b-il tanam
 here then durative-3sg-begin-impf 3sg-gin-ps-impf cotton
 'here, then, cotton begins to be ginned
- t-u-men çhup-l-al-e
 prep-3sg-deed woman-nom-nom-encl
 by women' (Ciudad Real 1600?: fol. 375v)
- (17e) puk-i-Ø in-puççikal t-u-men v-ñan xib-l-al
 be melted-perf-3sg 1sg-heart prep-3sg-deed 3sg-word man-nom-nom
 'my heart was melted by the man's words' (Ciudad Real 1600?: fol. 384r)

Passive clauses have the same structure in Modern Yucatec:

- (18a) ç'ó?ok u-hó?ok'-ol uy-òok š-maruč t-u-mèen h-pèedroh
 terminative 3sg-be tied loosely-impf 3sg-foot fem-Mary prep-3sg-deed masc-Peter
 'Mary is engaged to Peter [literally, Mary's foot has been tied loosely by Peter]' (V. Bricker et al. 1998:109)
- (18b) ç'ó?ok u-šé?e-b'-el in-nòok' t-u-mèen le pèek'-o?
 terminative 3sg-vomit-ps-impf 1sg-dress prep-3sg-deed det dog-dist
 'my dress has been vomited on by that dog' (V. Bricker et al. 1998:256)
- (18c) táan u-šii?-kun-t-á?al h-pèedroh t-u-mèen u-čiič
 durative 3sg-man-caus-trans-ps-impf masc-Peter prep-3sg-deed 3sg-grandmother
 'Peter is being made a man by his grandmother' (V. Bricker et al. 1998:257)

The nominal subject is not always mentioned in such clauses in Modern Yucatec:

- (19a) ç'ó?ok uy-ič-t-á?al t-u-mèen h-wàan
 terminative 3sg-eye-trans-ps prep-3sg-deed masc-John
 'she has been adored by John' (V. Bricker et al. 1998:11)
- (19b) má?ak'-Ø-Ø t-u-mèen kisin
 be licked-perf-3sg prep-3sg-deed devil
 'he was licked by the Devil [i.e., killed]' (V. Bricker et al. 1998:178)

- (19c) č'ŋin-Ø-Ø t-u-mèen h-wàan
 be thrown-impf-3sg prep-3sg-deed masc-Juan
 'he was thrown by John' (V. Bricker et al. 1998:84)

Nor is the agent always mentioned in passive clauses in Modern Yucatec:

- (20a) k-u-kóʔon-ol ʔiis way-eʔ
 incomplete-3sg-be sold-impf sweet potato here-encl
 'sweet potatoes are sold here' (elicitation notes 1979)
- (20b) k-uy-úuʔ-kíin-s-áʔal č'òoy way-eʔ
 incomplete-3sg-good-caus-caus-ps-impf bucket here-encl
 'buckets are repaired here' (elicitation notes 1979)

These clauses end with the adverbial particle, wayeʔ 'here.'

1.2.2. BASIC WORD ORDER IN ANTIPASSIVE CLAUSES. The structure of antipassive clauses is similar to that of passive clauses, except that it is the patient, not the agent, that is deleted from the verb, and the nominal patient is sometimes moved into an oblique phrase after the verb. In the following examples from the Calepino de Motul, the noun representing the former patient appears after the preposition *ti*:

- (21a) bax v-chun a-hak-Ø ti takin
 what 3sg-reason 2sg-value-ap prep money
 'why do you value money?' (Ciudad Real 1600?: fol. 174v)
- (21b) bool-n-Ø-en ti han-al
 payment-ap-perf-1sg prep food-nom
 'I satisfied my hunger [literally, I paid for food]' (Ciudad Real 1600?: fol. 54v)
- (21c) boot-Ø in-cah t-in-pal-il
 pay-ap 1sg-go prep-1sg-servant-nom
 'I am paying my servant' (Ciudad Real 1600?: fol. 56r)

The antipassive examples in (21a–b) can be compared with their active transitive counterparts in (22a–b), where the patients, *takin* 'money' and *hanal* 'food,' appear directly after the verb:

- (22a) bax v-chun a-hak-ic-Ø takin
 what 3sg-reason 2sg-value-impf-3sg money
 'why do you value money?' (Ciudad Real 1600?: fol. 174v)
- (22b) in bool-t-ah-Ø han-al
 1sg-payment-trans-perf-3sg food-nom
 'I satisfied my hunger [literally, I paid for food]' (Ciudad Real 1600?: fol. 54v)

The oblique phrases in such clauses may be introduced by either *tíʔ* or *ʔič* in Modern Yucatec:

- (23a) pak'al-n-ah-en *ʔič* kòol
 plant-ap-perf-1sg prep cornfield
 'I planted in the cornfield' (elicitation notes 2002)
- (23b) k-in-meyah-Ø *tíʔ* h-wàan
 incompletive-1sg-work-ap prep masc-John
 'I work for John' (V. Bricker et al. 1998:183)
- (23c) k-in-kèen-Ø *tíʔ*-Ø
 incompletive-1sg-tell-ap prep-3sg
 'I told __ him' (V. Bricker et al. 1998:126)

They can be compared with active transitive clauses based on the same roots:

- (24a) táan im-pak'-ik-Ø in-kòol
 durative 1sg-plant-impf-3sg 1sg-cornfield
 'I am planting my field' (V. Bricker et al. 1998:206)
- (24b) táan in-meyah-t-ik-Ø in-yùum
 durative 1sg-work-trans-impf-3sg 1sg-father
 'I am serving my father' (V. Bricker et al. 1998:183)
- (24c) t-u-ken-ah-Ø ten
 completive-say-perf-3sg to-me
 'he said it to me' (V. Bricker et al. 1998:126)

The examples in (25a-b) compare an active transitive clause with an antipassive clause based on the same verbal stem from which the patient has been deleted:

- (25a) k'ab'éet im-buk'-(u)l-ik-Ø le lúʔum-aʔ
 obligative 1sg-move-nom-impf-3sg det earth-prox
 'I must move this earth' (V. Bricker et al. 1998:38)
- (25b) táan u-b'ùuk'-ul-Ø (l)e k'éʔek'enoʔ
 durative 3sg-root around-nom-ap det pig-dist
 'that pig is rooting around' (V. Bricker et al. 1998:38)

1.3. INDIRECT OBJECT ADVANCEMENT. The process of noun-incorporation described in **5.1.** in Chapter 7 facilitates the movement of indirect objects out of prepositional phrases and into the position directly after the transitive stem. The Calepino de Motul contains several minimal pairs that illustrate this possibility, including the following pair of examples (Ciudad Real 1600?: fol. 282v):

- (26a) ma a-mac-ic-Ø a-*ich* t-a-yum
 not 2sg-close-impf-3sg 2sg-eye prep-2sg-father
 'don't scorn your father!'

- (26b) ma a-mac=ich-t-ic-Ø _ a-yum
 not 2sg-close=eye-trans-impf-3sg _ 2sg-father
 'don't scorn your father!'

The direct object in (26a) is a-ich 'your eye,' and the indirect object is a-yum 'your father.' In (26b), the direct object (ich) has been incorporated into the verb stem, which is then retransitivized with -t, and the former indirect object (a-yum) is no longer preceded by the preposition t-, but immediately follows the retransitivized stem. Other minimal pairs that illustrate this process are based on the transitive phrases, lup haa 'to offer water' and nuc ol 'to satisfy' (1600?: fols. 277r, 333v):

- (27a) lup-Ø-ex haa ti num-ul be-ob
 offer-imper-2pl water prep pass-aj road-3pl
 'offer water to travellers!'
- (27b) lup=haa-t-Ø-ex _ num-ul be-ob
 offer=water-trans-imper-2pl _ pass-aj road-3pl
 'offer water to travellers!'
- (28a) a-nuc-ah-Ø va au-ol ti hanal
 2sg-respond-perf-3sg interrog 2sg-heart prep eating
 'are you satisfied with eating?'
- (28b) a-nuc=ol-t-ah-Ø va _ hanal
 2sg-respond=heart-trans-perf-3sg interrog _ eating
 'are you satisfied with eating?'
- (29a) a-nuc-ah-Ø va au-ol ti baxal
 2sg-respond-perf-3sg interrog 2sg-heart prep playing
 'are you satisfied with playing?'
- (29b) a-nuc=ol-t-ah-Ø va _ baxal
 2sg-respond=heart-trans-perf-3sg interrog _ playing
 'are you satisfied with playing?'

The same process of indirect-object advancement through noun-incorporation occurs in Modern Yucatec (V. Bricker et al. 1998:354):

- (30a) t-in-č'ak-ah-Ø če? ?ičil in-kòol
 completive-1sg-chop-perf-3sg tree prep 1sg-cornfield
 'I chopped a tree in my cornfield'
- (30b) t-in-č'ak=če?-t-ah-Ø _ in-kòol
 completive-1sg-chop=tree-trans-perf-3sg _ 1sg-cornfield
 'I chopped trees in my cornfield [literally, I tree-chopped my cornfield]'

- (31a) t-in-wek-ah-Ø haʔ tí h-piil
 completive-1sg-spill-perf-3sg water prep masc-Philip
 'I spilled the water on Philip'
- (31b) t-in-wek=háʔa-t-ah-Ø _ h-piil
 completive-1sg-spill=water-trans-perf-3sg _ masc-Philip
 'I threw water at Philip'

The indirect objects in the above examples, in both Colonial and Modern Yucatec, are nouns. If they are independent pronouns, the former indirect object is suffixed directly to the transitive stem:

- (32a) k-u-čin-ik-Ø u-hóʔol tíʔ tèen
 incompletive-3sg-bend-impf-3sg 3sg-head prep me
 'he bows his head to me (elicitation notes 1979)'
- (32b) k-u-čin=hóʔol-t-ik-en
 incompletive-3sg-bow=head-trans-impf-me
 'he head-bows me' (elicitation notes 1979)
- (33a) k-u-muʔ'-ik-Ø uy-ič ten
 incompletive-3sg-close-impf-3sg 3sg-eye to-me
 'he scowls at me [literally, he closes his eyes at me]' (elicitation notes 1979)
- (33b) k-u-múuʔ'-=ʔič-t-ik-en
 incompletive-3sg-close=eye-trans-impf-me
 'he eye-closes me' (elicitation notes 1979)

2. FOCUSED WORD ORDERS

Departures from the Basic Word Order in Colonial and Modern Yucatec emphasize the agent or patient of a transitive verb, the subject of an intransitive verb, the manner in which an action is carried out, or its temporal or locational attributes. The movement of a transitive agent or a functional adverb into initial position in a clause or a sentence triggers changes in verbal inflection; the fronting of a transitive patient or an intransitive subject does not.

2.1. AGENT FOCUS. The clitic pronoun that marks the agent of a transitive verb disappeared when the noun or the independent pronoun that represented the agent preceded the verb, as can be seen in these examples based on imperfective transitive stems from Colonial Yucatec:

- (34a) yan-tac vinic-ob _ con-ic-Ø v-baal v-ba-ob
 exist-pl person-3pl _ sell-impf-3sg 3sg-thing 3sg-self-3pl
 'there are men who sell their possessions' (MID1567:fol. 366, lines 44–45)
- (34b) Dios _ ɔa-ic-Ø v-macul a-kab-ex
 God _ give-impf-3sg 3sg-reward 2sg-hand-2pl
 'it is God who rewards you-all' (Ciudad Real 1600?: fol. 284v)

- (34c) toon _ bot-ic-Ø hele-la-e
 we _ pay-impf-3sg today-prox-encl
 'it is we who pay for it today' (Gordon 1913:21)

Also missing in these examples is evidence of an aspectual particle, such as *licil*, *tan*, or *hop*, between the focussed noun and the verb. However, such a particle does appear in transitive phrases with focused agents that refer to the remote future:

- (35a) Dios bin _ ɔa-ic-Ø v-manul a-kab-ex
 God future _ give-impf-3sg 3sg-reward 2sg-hand-2pl
 'it is God who will reward you-all' (Ciudad Real 1600?: fol. 298v)

- (35b) ma-ix mac bin _ luk-s-ic-Ø ten
 not-and person future _ leave-caus-impf-3sg prep-1sg
 'and no one will remove it from me

t-u-men-el in-matan ti mam Diego Us
 prep-3sg-deed-nom 1sg-gift prep grandfather Diego Us
 because it is my gift from grandfather, Diego Us' (OX683-013A-C)

Furthermore, the transitive aspectual suffix that co-occurred with *bin* in the Basic Word Order was -e or -Ø, not -ic, in Colonial Yucatec (cf. [4] above). In other words, the distinction between the imperfective and subjunctive transitive stems was neutralized in agent-focus constructions in Colonial Yucatec.

So also was the distinction between perfective and subjunctive stems in agent-focus constructions in Colonial Yucatec, where the perfective stem suffix was -e or -Ø, instead of -ah:

- (36a) ton=con _ ɔa-Ø-Ø hah-al than
 we=who=are _ give-subj-3sg truth-aj word
 'it is we who gave the true word [i.e., certified it]' (PS740A-030A)

- (36b) mac ti laach-Ø-ech
 who completive _ scratch-subj-2sg
 'who scratched you?' (Ciudad Real 1600?: fol. 258v)

- (36c) Ah Kin Caamal likul Cam=pech oc-es-Ø-Ø ɔul-ob
 Ah Kin Caamal from Campeche enter-caus-subj-3sg foreigner-3pl
 'it was Ah Kin Caamal from Campeche who admitted the foreigners

vay ti peten-la-e
 here prep peninsula-prox-encl
 here into the peninsula' (Gordon 1913:17)

- (36d) ma toon t _ men-t-e-Ø-i
 not we completive _ deed-trans-subj-3sg-partit
 'it was not we who did it' (Gordon 1913:21)

Table 16-2. A comparison of the aspectual suffixes associated with the Basic and Focused Word Orders for the agents of transitive verbs.

	Basic	Focused
Imperfective	-ic	-ic
Perfective	-ah	-e/-Ø
Remote Future	-e/-Ø	-ic

This can be seen by comparing the agent-focus examples in (36a–c) with the ones in (6) and (7) above. The example in (36d) represents the first line of a couplet that continues with the imperfective example in (34c) above.

Table 16-2 summarizes the differences in aspectual suffixes associated with transitive agents in the Basic and Focused Word Orders. It shows that what serves as the imperfective suffix in the Basic Word Order (-ic) marks the remote future in the Focused Word Order and that the subjunctive suffix (-e/-Ø) marks both the remote future in the Basic Word Order and the perfective in the Focused Word Order, leaving only the perfective suffix (-ah) with a single function in the Basic Word Order.

The same paradigm characterizes the two word orders for transitive agents in Modern Yucatec. As in Colonial Yucatec, agent-focus nouns or independent pronouns co-occur with the -ic (phonetic [-ik]) suffix on transitive verbs with imperfective inflection:

- (37a) dyòos _ b'óʔo(l)-t-ik-Ø
 God _ payment-trans-impf-3sg
 'thank you! [literally, it is God who pays it]' (V. Bricker et al. 1998:35)
- (37b) tèeč _ paš-ik-Ø tèeč _ ʔóok'os-t-ik-Ø
 you _ play-impf-3sg you _ dance-trans-impf-3sg
 'it is you who play it; it is you who dance it [said to someone who contradicts himself]' (V. Bricker et al. 1998:209)
- (37c) miš=máak p'ek-t-ik-Ø máak y-éet-el u-meyah way-eʔ
 no=person _ hate-trans-impf-3sg person 3sg-with-nom 3sg-work here-encl
 'no one interferes with a person's work here' (CHK1979)

The same is true of transitive verbs that refer to the remote future:

- (38a) tèen b'íin _ ʔ'íib'-t-ik-Ø
 I future _ writing-trans-impf-3sg
 'it is I who will write it' (Blair 1964:113)
- (38b) letíʔ b'íin _ haʔ-(i)k-en
 he future _ hit-impf-1sg
 'it is he who will hit me' (elicitation notes 1979)

However, there is also an alternative example of the agent-focus transitive stem in (38c):

- (38c) letí? b'íin u-haç'-Ø-en
 he future 3sg-hit-subj-1sg
 it is he who will hit me' (elicitation notes 1979)

This is the normal inflection of transitive verbs with b'íin in the Basic Word Order, but here the agent precedes the verb instead of following it. A possible Colonial example of this alternative pattern in my database is shown below:

- (39) ma-ix inu-ix-mehen-ob bin u-bo(l)-t-e-Ø patan
 not-and 1sg-fem-offspring-3pl future 3sg-payment-trans-subj-3sg tribute
 'nor will my daughters pay tribute' (CHX-222A-B)

As in Colonial Yucatec, perfective transitive stems associated with focused agents are marked by -e (phonetic [-eh]) or -Ø:

- (40a) le heneràal Kórtés _ tàa(l)-s-Ø-Ø (l)e b'á?al-a?
 det General Cortés _ come-caus-subj-3sg det thing-prox
 'it was General Cortés who brought this thing' (V. Bricker 1981a:219, lines 1-2)
- (40b) h-wàan _ hàan-t-eh-Ø
 masc-John _ food-trans-subj-3sg
 'it is John who ate it' (Blair 1964:107)
- (40c) le b'á?aš _ šot-Ø-Ø h-piil-a? máaskab'
 det thing _ cut-perf-3sg masc-Philip-prox machete
 'the thing that cut Philip was a machete' (V. Bricker et al. 1998:27)
- (40d) máaš _ ?il-Ø-eč
 who _ see-subj-2sg
 'who saw you?' (Blair 1964:107)
- (40e) tèn _ ?il-eh-Ø
 I _ see-subj-3sg
 'it is I who saw it' (V. Bricker et al. 1998:273)

But there is also an alternative example of the agent-focus transitive stem in (40f) that preserves the inflectional pattern found in the Basic Word Order:

- (40f) tèn t-inw-il-ah-Ø
 I completive-1sg-see-perf-3sg
 'it is I who saw it' (V. Bricker et al. 1998:273)

A comparable example of this alternative in my Colonial database appears below:

- (41) y-ok(l)al t-in-hun-al-i in-bo(l)-t-ah-Ø
 3sg-because prep-1sg-one-nom-partit 1sg-payment-trans-perf-3sg
 'because it is I alone who paid

 v-ppax in-yum-e
 3sg-debt 1sg-father-encl
 the debt of my father' (DZ587A-039A-B)

2.2. PATIENT FOCUS. Patient-focus transitive stems can be distinguished from agent-focus transitive stems in two ways: they retain both the clitic pronouns and the aspectual suffixes of the Basic Word Order. The following examples illustrate this pattern for patient-focus transitives with imperfective inflection in Colonial Yucatec:

- (42a) uaxac=tul u-tzimin c-tzen-t-ic-Ø
 eight=nc 3sg-horse 1pl-adoptee-trans-impf-3sg
 'eight are his horses that we feed

 ti te tux yan u pach ù-caña-e
 prep there where exist 3sg-plantation 3sg-sugarcane-encl
 there where his sugarcane plantation exists' (HB784C-211B-D)
- (42b) chen lo-lob than c-uy-ic-Ø t-u-chi
 only unkind word 1pl-hear-impf-3sg prep-3sg-mouth
 'only unkind words do we hear from his mouth

 y lox c-u-men-t-ic-Ø ton man=tao
 and blow incomplete-3sg-deed-trans-impf-3sg to-us constantly
 and blows that he inflicts on us constantly' (HB784C-227A-228B)

Other examples document this pattern for patient-focus transitives that refer to the remote future with bin and the subjunctive suffix, -e:

- (43a) ɔa=yatz-il-ix bin ca-kam-e-Ø t-a-kab
 give=alm-nom-and future 1pl-receive-subj-3sg prep-2sg-hand
 'and alms we will receive from your hand,

 yn-noh tzi(c)-ben-il yum-e
 1sg-great respect-pot-nom father-encl
 my great revered father' (DZ651E-617B-D)
- (43b) va-ix çac cib bin u-kex-in-t-e-Ø xan-e
 or-and white wax future 3sg-exchange-usat-trans-subj-3sg also-encl
 'except white wax that he will substitute also' (Gordon 1913:64-65)

Patient-focus examples of transitive verbs with the perfective suffix, -ah, appear below:

- (44a) lay v-hah-il t-in-men-t-ah-Ø yt. ca-firma
 det 3sg-true-nom completive-1sg-deed-trans-perf-3sg with 1pl-signature
 'this is the truth I made with our signatures' (PS740B-151A-B)
- (44b) yan-ix v-ppax in-yum in-bo(l)-t-ah-Ø t-in-hun-al xan
 exist-and 3sg-debt 1sg-father 1sg-payment-trans-perf-3sg prep-1sg-one-nom also
 'and there is the debt of my father that I alone paid also' (DZ587A-020A-B)

The last example is the patient-focus counterpart of the agent-focus example in (41); they appear within a few lines of each other in a document from the Puuc region dated to 1587. Both examples employ the -ah perfective suffix and clitic pronouns that are hallmarks of the Basic Word Order. It seems that the variation in the morpho-syntax of agent-focus transitives is not of recent origin, but already existed in early Colonial times.

Information questions introduced with the interrogative pronouns, b'á?aš 'what?' and máaš 'who?,' and the relative pronouns based on them are the most common sources of patient-focus expressions in Modern Yucatec (e.g., V. Bricker 1979b). Some examples of their use with imperfective transitive stems appear below:¹

- (45a) máaš k-aw-il-ik-Ø
 who incomplete-2sg-see-impf-3sg
 'whom do you see?' (V. Bricker 1979b:122)
- (45b) le b'á?aš k-u-šot-ik-Ø h-wàan-o?
 det what incomplete-3sg-cut-impf-3sg masc-John-dist
 'that thing that John cuts' (V. Bricker 1979b:124)

Independent pronouns can also serve as patients in patient-focus constructions:

- (45c) letí? k-in-hač'-ik-Ø
 he incomplete-1sg-hit-impf-3sg
 'it is he whom I hit' (elicitation notes 1979)

The same pronouns appear as patients in patient-focus constructions based on transitive stems that co-occur with b'íin and are inflected with -eh or -Ø:

- (46a) máaš b'íin aw-il-eh-Ø
 who future 2sg-see-subj-3sg
 'whom will you see?' (V. Bricker 1979b:122)
- (46b) le b'á?aš b'íin u-šot-Ø-Ø h-wàan-o?
 det what future 3sg-cut-subj-3sg masc-John-dist
 'that thing that John will cut' (V. Bricker 1979b:124)

- (46c) letí? b'íin in-hač'-eh-Ø
 he future 1sg-hit-subj-3sg
 'it is he whom I will hit' (elicitation notes 1979)

And, as in Colonial Yucatec, transitive stems inflected for perfective aspect with -ah follow pronouns in patient-focus expressions:

- (47a) máaš t-aw-il-ah-Ø
 who completive-2sg-see-perf-3sg
 'whom did you see?' (V. Bricker 1979b:122)
- (47b) le b'á?aš t-u-šot-ah-Ø h-wàan-o?
 det what completive-3sg-cut-perf-3sg masc-John-dist
 'that thing that John cut' (V. Bricker 1979b:124)
- (47c) letí? t-in-hač'-ah-Ø
 he completive-1sg-hit-perf-3sg
 'it is he whom I hit' (elicitation notes 1979)
- (47d) té?e čéen miš=máak t-inw-il-ah-Ø
 there just no=one completive-1sg-see-perf-3sg
 'just no one did I see there' (V. Bricker 1981a:235, line 480)

2.3. SUBJECT FOCUS. The inflection of an intransitive verb does not change when its subject is moved into the focus position before the verb, and in this respect it resembles the inflection of the transitive verb with a focused patient. For example, the intransitive verb, *mal* 'to pass,' whose imperfective suffix was -Ø in the Basic Word Order of Colonial Yucatec, was marked by the same suffix in subject-focus constructions:

- (48a) ma-ix bal c-u-mal-Ø ti y-ol-ob xan
 not-and thing incompletive-3sg-pass-impf prep 3sg-heart-3pl also
 'and nothing passes in their hearts also' (MID567:fol. 366, line 50)

The intransitive verb, *tal* 'to come,' whose imperfective stem suffix was -el, behaved in the same way in subject-focus constructions:

- (48b) u-t'han ku lic-u-tal-el
 3sg-word God incompletive-3sg-come-impf
 'it is the word of God that comes' (Tizimin n.d.: fol. 17r)
- (48c) lai u-t'han katun c-u-tal-el-e
 det 3sg-word 20-year period incompletive-3sg-come-impf-encl
 'this is the word of the katun that comes' (Tizimin n.d.: fol. 15v)

Intransitive verbs that co-occurred with *bin* in subject-focus constructions were marked by the subjunctive suffix, -Vc (V echoes the vowel in the intransitive root), in Colonial Yucatec:

- (49a) ma=mac bin than-ac-Ø t-uy-ok(o)l-al
 no=person future speak-subj-3sg prep-3sg-because-nom
 'no one will speak because of it' (TK789A-012)
- (49b) t-u-men num=ya bin tal-ac-ob
 prep-3sg-deed misfortune future come-subj-3pl
 'because misfortunes will come' (Tizimin n.d.: fol. 21v)
- (49c) lay-ix bin em-ec-Ø ti noh muyal
 det-and future descend-subj-3sg prep great cloud
 'and he will descend on a great cloud' (Gordon 1913:48)

And intransitive verbs that referred to the past were marked by the perfective suffix, -i, when they occurred in subject-focus contexts in Colonial Yucatec:

- (50a) nicte katun _ kuch-i-Ø
 flower 20-year period _ arrive-perf-3sg
 'the flower katun arrived' (Tizimin n.d.: fol. 7v)
- (50b) mac ti-man-i-Ø vay-la-e
 who completive-pass-perf-3sg here-prox-encl
 'who passed here?' (Gordon 1913:60)
- (50c) mac ti-çih-i-Ø ca em-i-Ø yum
 who completive-be born-perf-3sg when descend-perf-3sg father
 'who was born when father descended?' (Gordon 1913:53)

The example in (50c) contains two intransitive stems (çih-i 'he was born' and em-i 'he descended'), the first following a focused subject (mac 'who?') and the second followed by a non-focused subject (yum 'father'). The perfective suffix is -i in both cases.

The same inflectional patterns characterize subject-focus intransitives in Modern Yucatec. The following examples are based on the imperfective stem of b'in 'to go':

- (51a) le kó?olel k-u-b'in-Ø-o? hač š-č'ùup
 det woman incompletive-3sg-go-impf-dist very fem-woman
 'that woman who goes is very industrious' (V. Bricker et al. 1998:88)
- (51b) máaš k-u-b'in-Ø k'íiwik
 who incompletive-3sg-go-impf plaza
 'who goes to the plaza?' (elicitation notes 1979)
- (51c) le máaš k-u-b'in-Ø k'íiwik-o?
 det who incompletive-3sg-go-impf plaza-dist
 'that person who goes to the plaza' (elicitation notes 1979)

In (52), *b'in* is replaced by its suppletive form, *š'ik*, that serves as its subjunctive stem after the aspectual head word, *b'in*:

- (52) máaš *b'in* *š'ik*-Ø *k'íiwik*
 who future go-subj-3sg plaza
 'who will go to the plaza?' (V. Bricker 1979b:133)

The examples in (53a–c) are based on the perfective stems of *tàal* 'to come' and *b'in* 'to go':

- (53a) máaš má? _ *tàal*-Ø-Ø-e? *in-sukú?un*
 who not _ come-perf-3sg-top 1sg-older brother
 'the person who did not come is my older brother' (V. Bricker et al. 1998:181)
- (53b) máaš *h-b'in*-Ø-Ø *k'íiwik*
 who completive-go-perf-3sg plaza
 'who went to the plaza?' (elicitation notes 1979)
- (53c) *le* máaš _ *b'in*-Ø-Ø *k'íiwik-o?*
 det who _ go-perf-3sg plaza-dist
 'that person who went to the plaza' (elicitation notes 1979)

The perfective suffix is -Ø, not -ih, in these examples because the intransitive verbs do not occur at the end of phrases.

2.4. ADVERBIAL FOCUS. When manner, temporal, and locative adverbial particles or phrases are moved from their normal position at the end of clauses and sentences to the beginning, they govern changes in the aspectual suffixes of the transitive and intransitive verbs that follow them (Table 16-3) and in the type of ergative split associated with intransitives. Not all of these characteristics are still evident in Modern Yucatec.

2.4.1. MANNER ADVERBIAL FOCUS. Manner adverbials refer to how an action is performed. They include particles like *bix* 'how?', *bay* 'thus,' *xan* 'slowly,' and *çeb* 'quickly,' as well as adjectives like *tibil* 'nice' and numeral classifier compounds like *hun=tao* 'rapidly' and *hun=cet* 'together.' Their use in focused constructions is described for transitive and intransitive verbs below.

2.4.1.1. FOCUSED MANNER ADVERBIALS WITH TRANSITIVE STEMS. Focused manner adverbials replaced the aspectual head word or clitic particle with imperfective transitive stems, but did not change the aspectual suffix on the verb, which remained -ic in Colonial Yucatec:

- (54a) *hach tibil*-ix *v-tzec-t-ic*-on-ob *cuchi*
very nice-and 3sg-sermon-trans-impf-1pl-3pl then
 'and it was very good for them to preach to us then' (MID567:fol. 365, lines 18–19)
- (54b) *bic*-x *uil a-tñan-ic*-Ø *ahau ca a nupp-Ø-Ø ti be*
how-interrog dubit 2sg-speak-impf-3sg king if 2sg-meet-subj-3sg prep road
 'how would you speak to the king if you met him on the road?' (Ciudad Real 1600?: fol. 51v)

Table 16-3. Aspectual suffixes that co-occur with transitive and intransitive verbs in the Basic Word Order compared with those governed by focused adverbials

	Basic	Focused
Transitives		
Imperfective	-ic	-ic
Perfective		
Immediate	-ah	-ah
Historical	-ah	-(i)ci
		-il
Remote Future	-e/-Ø	-ic
Intransitives		
Imperfective	-VI/-Ø	-VI/-Ø
Perfective		
Immediate	-i/-Ø	-ic
Historical	-i/-Ø	-(i)ci
Remote Future	-Vc	-ebal

Focused adverbials, like focused agents, marked the subjunctive stems of transitives with -ic instead of -e/-Ø, thereby neutralizing the distinction between the imperfective and subjunctive stems of transitive verbs:

- (55a) *utz-cin-Ø bay bin au-al-ic-Ø-e*
 good-caus-3sg *thus* future 2sg-say-impf-3sg-encl
 'do as you will say!' (Ciudad Real 1600?: fol. 41v)
- (55b) *ti he-bix bin y-ol-t-ic-Ø-e*
 prep *however* future 3sg-heart-trans-impf-3sg-encl
 'however he will desire it' (HB783A-039B)
- (55c) *bic-x bin av-utz-cin-ic-Ø-lo*
how-interrog future 2sg-good-caus-impf-3sg-dist
 'how will you improve that?' (Ciudad Real 1600?: fol. 437r)

The changes in word order had no effect on the immediate past of transitive stems, which retained the -ah suffix of the Basic Word Order:

- (56) pah=çubul-tzil y-al-ah-Ø ten
sour=shame-aj 3sg-say-perf-3sg to-me
 'he insulted me' (Ciudad Real 1600?: fol. 359v)

However, it did have an effect on the historical past of transitive stems, marking them with -ici, instead of -ah:

- (57a) ocol-bil _ v-cin-s-ici-Ø v-lak
steal-aj _ 3sg-die-caus-perf-3sg 3sg-companion
 'treacherously, he killed his companion' (Ciudad Real 1600?: fol. 343r)
- (57b) hi-bic-il t-u-can-t-ici-ob
det-how-nom completive-3sg-conversation-trans-perf-3sg-3pl
 'however they related it' (TK590A-007A)

or with -il:

- (58a) bay y-ohel-il-Ø t-u-lac-al u-nuc-il uinic-ob
thus 3sg-know-perf-3sg prep-3sg-all-nom 3sg-big-nom person-3pl
 'thus, all the senior men knew it' (KNX784A)

The only other example in my Colonial database of -il marking the historical past on a transitive stem followed a focused adverbial phrase that denoted reason or cause (cf. Yasugi 2005:69–70):

- (58b) lay v-chun v-nup-il-en-lo-e
det 3sg-reason 3sg-oppose-perf-1sg-dist-encl
 'that is the reason why he opposed me' (DZ587A-071)

On the other hand, -il did follow -ma in transitive stems inflected for the present perfect aspect after manner adverbials in Colonial Yucatec:

- (59) bai y-ohel-ma-il-Ø ca-yum-il ti Dios
thus 3sg-know-pperf-nom-3sg 1pl-father-nom prep God
 'thus our father who is God has known

yan-il yn-tok-yah tñan
 exist-nom 1sg-testament-nom word
 of the existence of my last will and testament' (TK775B-025A-B)

I mention these uses of -il here because it has become a much more common suffix on transitive stems after focused adverbial particles and phrases in Modern Yucatec (see below).

The transition from Colonial to Modern Yucatec did not affect the inflection of imperfective transitive stems after manner adverbials:

- (60a) má?alob' a-t'an-ik-Ø màayah
well 2sg-speak-impf-3sg Maya
 'you speak Maya well [literally, well you speak Maya]' (V. Bricker 1978:17)

- (60b) b'ey inw-il-ik-Ø-o?
thus 1sg-see-impf-3sg-dist
 'thus I see it' (elicitation notes 1979)

- (60c) b'ey a-hač'-ik-en-o?
thus 2sg-hit-impf-1sg-dist
 'thus you hit me' (V. Bricker 1981b:119)

Now, as in Colonial Yucatec, the imperfective stem suffix remains the same as in the Basic Word Order, and the manner adverbial particle or phrase replaces the incomplete aspectual particle (compare [60b–c] with [54a–b]).

On the other hand, the distinction between the stem suffixes of transitive verbs that co-occurred with the remote future in the two word orders in Colonial Yucatec has been neutralized in Modern Yucatec. Today, transitive stems employ the subjunctive suffixes, -eh/-Ø, in both word orders, rather than only in the Basic Word Order:

- (61a) b'ış b'iin in-hač'-Ø-eč
how future 1sg-hit-subj-2sg
 'how will I hit you?' (elicitation notes 1979)

- (61b) b'ey b'iin in-hač'-Ø-eč-o?
thus future 1sg-hit-subj-2sg-dist
 'thus I will hit you' (elicitation notes 1979)

As explained in 6. in Chapter 5, the distinction between the immediate past and the historical past no longer exists in Modern Yucatec, and the principal suffix that marked the historical past in transitive stems preceded by manner adverbial particles and phrases (-ici) has disappeared. What is left are the -ah suffix of the immediate past and the -il suffix of the less common historical past that now co-occur on the transitive stem:

- (62a) má?alob' t-inw-il-ah-il-Ø
well completive-1sg-see-perf-nom-3sg
 'I saw it well [literally, well I saw it]' (elicitation notes 1979)

- (62b) b'ey t-inw-il-ah-il-Ø-o?
thus completive-1sg-see-perf-nom-3sg-dist
 'thus I saw it' (elicitation notes 1979)

- (62c) b'ey t-a-hàan-t-ah-il-Ø
thus completive-2sg-food-trans-perf-nom-3sg
 'thus you ate it' (Blair 1964:114)

However, the -ah suffix often disappears in Modern Yucatec, leaving -il as the only marker of the perfective aspect in such focused constructions:

- (62d) b'iš t-a-haɣ'-il-en
how completive-2sg-hit-nom-1sg
 'how did you hit me?' (V. Bricker 1981b:118)

As in Colonial Yucatec, -il follows -mah in transitive stems inflected for the present perfect aspect after manner adverbials in Modern Yucatec:

- (63a) b'ey inw-il-mah-il-Ø-o?
thus 1sg-see-pperf-nom-3sg-dist
 'thus I have seen him' (V. Bricker 1981b:121)

- (63b) b'ey a-haɣ'-mah-il-en-o?
thus 2sg-hit-pperf-nom-1sg-dist
 'thus you have hit me' (V. Bricker 1981b:121)

There is, in addition, one other kind of transitive stem in Modern Yucatec that is marked by -il when it follows a manner adverbial:

- (64a) b'ey k-a-n a-haɣ'-il-en-o?
thus defut-2sg 2sg-hit-nom-1sg-dist
 'thus you are going to hit me' (V. Bricker 1981b:119)
- (64b) b'ey k-in inw-á?al-il-Ø tí? in-sukú?un
thus defut-1sg 1sg-say-nom-3sg prep 1sg-older brother
 'thus I am going to say it to my older brother' (elicitation notes 1979)

They are examples of the definite future, for which I have found no counterpart in my Colonial database (see [94d] in 3. In Chapter 5 for examples of the agent-focus future in Modern Yucatec).²

2.4.1.2. FOCUSED MANNER ADVERBIALS WITH INTRANSITIVE STEMS. When intransitive stems were preceded by manner adverbial particles and compounds in Colonial Yucatec, they were characterized by two kinds of split ergativity. In the most common type, the subject of an imperfective intransitive was identified with the agent of a transitive verb, and the subject of a perfective or subjunctive intransitive verb was identified with the object of a transitive verb. The "split" was based on a contrast in aspects, with imperfective stems manifesting a nominative-accusative pattern of pronominal inflection and perfective and subjunctive stems an ergative-absolutive pattern of pronominal inflection. This type of split ergativity characterized the Basic Word Order in Colonial Yucatec and is still in use today.

The second type of split ergativity in Colonial Yucatec was based on a person hierarchy, with first- and second-person subjects of intransitive verbs following a nominative-accusative pattern and third-person subjects of such verbs governed by an ergative-absolutive pattern. It is no longer in use today (cf. 5.1. in Chapter 5).

The focusing of a manner adverbial had no effect on the morphology of imperfective intransitive stems, which retained the nominative-accusative pattern of pronominal inflection associated with the Basic Word Order. Thus, in the following examples based on ben 'to go,' the imperfective suffix is -el, and the subject is represented by one of the clitic pronouns:

- (65a) kokouac v-ben-el
unsteady 3sg-go-impf
 ‘unsteadily he goes about’ (Ciudad Real 1600?: fol. 250v)
- (65b) cham-cham=bel ca-ben-el ma=bal ca-hom-lah-t-e
slow-slow=road 1pl-go-impf no=thing 1pl-haste-dstpl-trans-subj
 ‘slowly we go one after another; nothing rushes us’ ((Ciudad Real 1600?: fol. 192v)
- (65c) hun=tao a-ben-el
one=nc 2sg-go-impf
 ‘directly you go’ (Ciudad Real 1600?: fol. 201r)
- (65d) hun=cet v-ben-el-ob
one=nc 3sg-go-impf-3pl
 ‘together they go’ (Ciudad Real 1600?: fol. 197v)

The imperfective suffix with *mal* ‘to pass’ and *tal* ‘to come’ is -Ø, and they, too, take clitic pronouns:

- (65e) bay v-mal-Ø booy bay v-mal-Ø muyal cux-tal-e
thus 3sg-pass-impf shade thus 3sg-pass-impf cloud life-pos-encl
 ‘this is how life passes: like shade, like clouds’ (Ciudad Real 1600?: fol. 41v)
- (65f) xan v-tal-Ø çac nal çeb v-tal-Ø mehen nal
slowly 3sg-come-impf white corn quickly 3sg-come-impf small corn
 ‘white corn comes slowly; small corn comes quickly’ (Ciudad Real 1600?: fol. 406r)

Note that the subjects of these intransitive verbs represent all three persons—first, second, and third—and all of them belong to the clitic set of pronouns. As such, they agree with the nominative-accusative pattern of pronominal inflection in Colonial Yucatec.

The subjunctive suffix that marked intransitive verbs in focused manner adverbial contexts was -*ebal*:

- (66) bay ben-ebal-Ø ti lakin
thus go-subj-3sg prep east
 ‘thus it may go to the east’ (OX595-023)

And it was the aspectual suffix that co-occurred with the use of the remote future (*bin*) after manner adverbials:

- (67a) napul bin tal-ebal-Ø vay-e
directly future come-subj-3sg here-encl
 ‘directly he will come here’ (Ciudad Real 1600?: fol. 324r)
- (67b) va=bici v-beel vinic-e bay bin bo(l)-t-ab-ebal-Ø
 however 3sg-road person-top thus future payment-trans-ps-subj-3sg
 ‘however man behaves, so will he be rewarded’ (Ciudad Real 1600?: fol. 437r)

- (67c) in-nibi bin a-haɔ-ebal
1sg-order future 2sg-be hit-subj
 'by my order you will be whipped' (Ciudad Real 1600?: fol. 326v)
- (67d) bay tun bin ɔɔc-ebal-Ø v-tʰan-al v-batab-il cah-ob
thus then future end-subj-3sg 3sg-word-nom 3sg-leader-nom town-3pl
 'thus, then, will end the word of the leaders of the town' (Gordon 1913:37)

The use of the suffixed pronoun, -Ø, in (67a–b) implies that the intransitive subjunctive was governed by the ergative-absolutive pattern of pronominal inflection in adverbially focused contexts, because it equated the subject with the patient of a transitive verb. However, the subject of *haɔ* 'be whipped' in (67c) is the clitic pronoun, *a-*, not the suffixed pronoun, *-ech*, indicating that the ergative split was based on a person hierarchy that marked the first- and second-person subjects with clitic pronouns and third-person subjects with suffixed pronouns.

The same pattern of pronominal inflection characterized the immediate past of intransitive verbs in focused manner adverbial contexts, whose perfective suffix was *-ic*:

- (68a) mach-bil in-kab in-tal-ic uay-e
firmly grasped-partic 1sg-hand 1sg-come-perf here-encl
 'firmly grasped by my hand, I came here' (Michelon 1976:228)
- (68b) bay xul-ic-Ø ca-okot-ba tʰan petesion-la-e
thus end-perf-3sg 1pl-cry-self word petition-prox-encl
 'thus ended this supplication and petition of ours' (HB783A-050A-B)

However, there is also an example that does not fit the pattern of using clitic pronouns for the first- and second-person subjects of intransitive verbs with focused manner adverbials:

- (68c) hun=taɔ bin-ic-on ti kax
one=nc go-perf-1pl prep forest
 'directly we went into the forest' (CHX n.d.-587)

Although the manuscript from which it comes (the Chronicle of Chac Xulub Chen) is putatively of mid-sixteenth-century date, according to Tozzer (1921:202–203) the extant copy is "full of errors," of which this may be an example.

The historical past of intransitive verbs in focused manner adverbial contexts was marked by *-ci* (not *-ic*) in Colonial Yucatec, and their pronominal inflection followed the ergative split based on a person hierarchy:

- (69a) t-in-bai-(i)li-en-i a-luk-ci vay-e
'prep-1sg-how-still-1sg-partit 2sg-leave-perf here-encl
 'I am just like I was when you left here' (Ciudad Real 1600?: fol. 42v)
- (69b) heuac hun=taɔ man-ci-Ø bay ɔib-ann-il-e
however one=nc pass-perf-3sg thus writing-partic-nom-encl
 'however, it passed directly as it was written' (Gordon 1913:13)

Imperfective intransitives that follow focused manner adverbials are inflected in the same way in Modern Yucatec as they were in Colonial Yucatec:

- (70a) b'ey a lúub'-ul-o?
 thus 2sg-fall-impf-dist
 'thus you are falling' (V. Bricker 1981b:119)
- (70b) çah in-b'in-Ø
 definitely 1sg-go-impf
 'I am definitely going' (V. Bricker et al. 1998:40)
- (70c) h-wàan-e? šàan u-meyah-Ø
 masc-John-top slowly 3sg-work-impf
 'as for John, he works slowly' (V. Bricker et al. 1998:254)

Intransitive verbs are no longer marked by -ebal with the remote future, b'ín, in focused manner adverbial contexts in Modern Yucatec, but take -Vk as the subjunctive suffix in such contexts:

- (71a) b'ey b'ín ší?-ik-en-o?
 thus future go-subj-1sg-dist
 'thus I will go' (elicitation notes 1979)
- (71b) b'ış b'ín ší?-ik-en
 how future go-subj-1sg
 'how will I go?' (elicitation notes 1979)

The use of the pronominal suffix, -en, as the subject of the intransitive verb is consistent with the ergative-absolutive pattern of pronominal inflection.

The only perfective suffix that is still in use with intransitive verbs in focused manner adverbial contexts in Modern Yucatec is -ik, the one that marked the immediate past in Colonial Yucatec:

- (72a) hun=tàaç' tàal-ik-Ø t-inw-iknal
 one=nc come-perf-3sg prep-1sg-presence
 'he came directly to me!' (V. Bricker et al. 1998:267)
- (72b) b'ış ç'ó?on-ik-Ø
 how be shot-perf-3sg
 'how was he shot?' (V. Bricker 1981b:89)

2.4.2. TEMPORAL ADVERBIAL FOCUS. Temporal adverbials refer to when an action takes place. They include particles like çamal 'tomorrow,' helel 'now, today,' iual 'today,' and ma bikin 'forever,' phrases like ox-ppel hab 'for three years,' dates like hun chuen '1 Chuen' and oxlahun kan '10 Kan,' and numeral classifier compounds like hun= lukul 'forever.' When they occurred in initial position in Colonial Yucatec, the verbs that followed them were inflected with the same aspectual suffixes and were marked by the same sets of dependent pronouns as the ones that followed manner adverbials.

2.4.2.1. FOCUSED TEMPORAL ADVERBIALS WITH TRANSITIVE STEMS. Imperfective transitives took -ic as their aspectual suffix after temporal adverbial phrases in Colonial Yucatec:

- (73a) ox-ppel hab c-in-meyah-t-ic-Ø
three-nc year incomplete-1sg-work-trans-impf-3sg
 'for three years I served him' (HB784E-409B)
- (73b) ma=bikin v-lik-s-ic-Ø baxal t-u-ca=ten
not=when 3sg-arise-caus-impf-3sg play prep-3sg-two=time
 'never will he kid around again' (OX683-016A-B)

The same suffix had a subjunctive function in transitive verbs that referred to the remote future with bin after a temporal adverbial phrase:

- (74) lauac ti kin-il bin a beel-t-ic-ex-lo
whatever prep day-nom future 2sg-road-trans-impf-2pl-dist
 'on whatever day you will do that' (Ciudad Real 1600?: fol. 264r)

The immediate past of transitive verbs was marked with -ah after focused temporal adverbials, the same suffix used with the Basic Word Order:

- (75a) helel en 29 de mayo de 1685 años
today on 29 of May of 1685 years
 'today on the 29th of May of the year 1685,
- t-in-hoch-ah-Ø vch-ben hun hek-la-e
completive-1sg-copy-perf-3sg old-pot book here-prox-encl
 I copied this from an ancient book' (XIU685-036A-C)
- (75b) helel en 20 de abril man-ic-Ø- pasgua resuresion
today on 20 of April pass-perf-3sg Easter Sunday
 'today on the 20th of April when Easter Sunday passed,
- t-in-hok-s-ah-Ø ho-ppel libra sac cib hool=hun-pis tumin
completive-1sg-emerge-caus-perf-3sg five-nc pound white candle fifteen-nc coin
 I withdrew five pounds of white candles for fifteen coins' (HB783B-220A-221B)
- (75c) ti hun=lukul v-ppat-ah-ob
prep one=nc 3sg-leave-perf-3pl
 'he left it forever' (Ciudad Real 1600?: fol. 422r)

The historical past of such verbs, which referred to an earlier time when the Precolumbian calendar was still in use, was marked by -ici after traditional dates functioning as focused temporal adverbs:

- (76a) hun chuen v-hok-ç-ici-Ø u-ba t-u-ku-il
one Chuen 3sg-emerge-caus-perf-3sg 3sg-self prep-3sg-God-abstr
 'on 1 Chuen was when he manifested himself in his divinity' (Gordon 1913:60)

- (76b) 1542 años oxlahun kan t-u-hun=te pop u-heɔ-(i)ci-Ø
1542 years thirteen Kan prep-3sg-one=nc Pop 3sg-establish-perf-3sg
 '1542 years: 13 Kan was on the first of Pop when the Spaniards established
 cah espanores-ob
 town Spaniards-3pl
 a town' (XIU685-025A-C)

The absence of an aspectual head-word or particle with the historical past in these examples, in contrast with the presence of the completive aspect particle, *t(i)*, in the examples of the immediate past in (75a–c), is consistent with the absence of such head-words after dates in Precolumbian hieroglyphic inscriptions (cf. V. Bricker 1986:167).

The transition from Colonial to Modern Yucatec had no effect on the inflection of imperfective transitive verbs:

- (77a) sáamal in-šíimb'al-t-ik-eč
tomorrow 1sg-walk-trans-impf-2sg
 'tomorrow I will visit you' (V. Bricker 1981b:95)
- (77b) làas séeys inw-il-ik-Ø
the six 1sg-see-impf-3sg
 'at six o'clock I will see him' (V. Bricker 1979a:269)
- (77c) dyèes déeh ʔáabril inw-il-ik-Ø
ten of April 1sg-see-impf-3sg
 'on the tenth of April I will see him' (V. Bricker 1979a:269)

The imperfective stem suffix remained *-ik*, and the temporal adverbial continued to replace the incomplete aspectual particle before the verb (compare [77a–c] with [73b]).

The aspectual suffix associated with the remote future changed from *-ik* to *-eh/-Ø* in transitive verbs that followed temporal adverbials in Modern Yucatec:

- (78a) miš=b'ik'in b'iin in-túʔub'-s-Ø-eč
not=when future 1sg-forget-caus-subj-2sg
 'I will never forget you' (Poʔot Yah n.d.a)
- (78b) b'áʔaš=k'iin b'iin u-ɣ'á-Ø-Ø ten
what=day future 3sg-give-subj-3sg to-me
 'when will he give it to me?' (Blair and Vermont-Salas 1967:679)

And perfective suffixes associated with the immediate and historical pasts in Colonial Yucatec were combined in a single transitive stem that refers to completed action in Modern Yucatec:

- (79a) làas sèeys t-inw-il-ah-il-Ø
the six completive-1sg-see-perf-nom-3sg
 'it was six o'clock when I saw him' (V. Bricker 1979a:268)

- (79b) dyèes déeh ?áabril t-inw-il-ah-il-Ø
ten of April completive-lsg-see-perf-nom-3sg
 'it was on the tenth of April when I saw him' (V. Bricker 1979a:268)

The changes in the suffixes associated with the remote future and perfective transitive stems that follow temporal adverbials in Modern Yucatec parallel those that took place after manner adverbials over time.

2.4.2.2. FOCUSED TEMPORAL ADVERBIALS WITH INTRANSITIVE STEMS. Imperfective intransitives took -el/-VI as their aspectual suffixes after temporal adverbial phrases in Colonial Yucatec:

- (80a) ma val ma-ix çamal ca-pax-al
not today not-and tomorrow 1pl-emigrate-impf
 'neither today nor tomorrow will we emigrate' (Ciudad Real 1600?: fol. 440v)
- (80b) ychil can-ppel hab tan u-man-el soldado-ob uai t-cah-al-e
within four-nc year durative 3sg-pass-impf soldier-3pl here prep-1pl-town-nom-encl
 'during four years, soldiers were passing here in our town' (HB784C-205A-B)

The subjunctive suffix that marked intransitive verbs in focused temporal adverbial contexts was -ebal, and the pronominal inflection of the verbs followed the ergative split based on a person hierarchy:

- (81a) ma c-ohel íual va çamal v-kin ca-luk-ebal
not 1pl-know today or tomorrow 3sg-day 1pl-leave-subj
 'we do not know if today or tomorrow is the time for us to leave
- vay y-ok-ol cab-e
here 3sg-upon-nom earth-encl
 the world here' (Ciudad Real 1600?: fol. 227r)
- (81b) ix-ma kin bin tal-ebal-Ø cim-il c-ok-ol
and-not time future come-subj-3sg death-nom 1pl-upon-nom
 'death will come upon us unannounced [literally, without day/time will come death upon us]'
 (Ciudad Real 1600?: fol. 229r)
- (81c) hach yab v-ten-el bin lub-ebal-Ø ti num=ya
very much 3sg-time-nom future fall-subj-3sg prep suffering
 'very numerous are the times that they will fall into misery' (Kaua n.d.:I, 40R)

The immediate past of intransitive verbs that followed temporal adverbial phrases was marked by -ic, and the subject pronouns reflected the ergative split in terms of the pronominal hierarchy that contrasted the first and second persons with the third:

- (82a) ox-il cauac cul-h-ic-Ø can ahau katun
three-aj Cauac sit-pos-perf-3sg four Ahau 20-year period
 'on 3 Cauac, Katun 4 Ahau was seated' (Tizimin n.d.: fol. 19r)

- (82b) ox=haab in-cul-ic y-icnal
three=years 1sg-sit-perf 3sg-presence
 'for three years, I lived with him' ((Ciudad Real 1600?: fol. 202v)

The historical past of such verbs was marked by -(i)ci after dates and temporal phrases and observed the same rule of split ergativity in the treatment of pronominal prefixes and suffixes:

- (83a) hoo ahau vl-ci-Ø ɔul ti chib-il uinic
five Ahau arrive-perf-3sg rel bite-aj person
 'during [Katun] 5 Ahau, the foreigners who were cannibals arrived' (Gordon 1913:79)

- (83b) 1543 años hun muluc t-u-hun=te pop cin-ci-ob ah-ɔicomtun-ob
1543 years one Muluc prep-3sg-one-nc Pop die-perf-3pl ag-Dzidzantun-3pl
 '1543 years: 1 Muluc was on the first of Pop when the people of Dzidzantun died

t-u-men v-katun espayores-ob
 prep-3sg-deed 3sg-war Spaniards-3pl
 because of the war of the Spaniards' (XIU685-028A-D)

- (83c) layli u-katun-il bin-ci-ob ah-ytza-ob
still 3sg-20-year period-nom go-perf-3pl ag-Itza-3pl
 'it was still the katun when the Itzas went

yalan che yalan haban yalan ak ti num=ya-ob-la-e
 beneath tree beneath bush beneath vine prep suffering-3pl-prox-encl
 beneath trees, beneath bushes, beneath vines in misery' (Gordon 1913:75)

- (83d) onteel haab in-men-yah-n-ici-Ø y-icnal in-haan
many year 1sg-deed-nom-ap-perf-3sg 3sg-presence 1sg-father-in-law
 'for many years, I worked in the house of my father-in-law' (Ciudad Real 1600?: fol. 351r)

Intransitive stems underwent no changes after temporal adverbials in the transition to Modern Yucatec:

- (84a) sáamal u-k'uč-ul
tomorrow 3sg-arrive-impf
 'tomorrow he will arrive' (V. Bricker 1981b:95)
- (84b) dyèes déeh ?áabril in kóoh-ol
ten of April 1sg-arrive-impf
 'on the tenth of April I will arrive' (V. Bricker 1979a:268)
- (84c) b'á?aş-k'iin a-b'in-Ø ho?
what=day 2sg-go-impf Merida
 'when will you go to Merida?' (V. Bricker et al. 1998:27)

The effect of the transition on the inflection of intransitive stems for the remote future in temporal adverbial contexts cannot be ascertained because of an accidental gap in my data for Modern Yucatec. Only the -ik suffix is still in use with perfective intransitives after temporal adverbials, and it co-occurs only with the suffixed pronouns:

- (85a) làas sèeys kóoh-ik-en
 the six arrive-perf-1sg
 'at six o'clock I arrived' (V. Bricker 1979a:241, 268)
- (85b) làas sèeys tal-ik-eč
 the six come-perf-2sg
 'was it six o'clock when you came?' (V. Bricker 1979a:241)
- (85c) dyèes déeh ?áabrìl kóoh-ik-en
 ten of April arrive-perf-1sg
 'it was on the tenth of April when I arrived' (V. Bricker 1979a:268)

2.4.3. LOCATIVE ADVERBIAL FOCUS. Locative adverbials refer to where an action takes place. They include particles like *te* 'there,' *tolo* 'out there,' *vay* ...-e 'here,' *taba*, *tab-x*, and *tux*, all meaning 'where?,' and numeral classifier compounds like *hun=auat* 'one=shout' and *hun=lub* 'one league.'

The use of focused locative adverbials with transitive verbs in my Colonial database is limited to those inflected for the imperfective and immediate past aspects, the ones whose suffixes are most similar to the ones used in the Basic Word Order. However, the full suite of aspectual stem suffixes associated with intransitive verbs in contexts with focused locative adverbials permits a more consistent comparison of their inflection for aspect and person with their behavior after manner and temporal adverbials in Colonial times.

2.4.3.1. FOCUSED LOCATIVE ADVERBIALS WITH TRANSITIVE STEMS. The earliest example of a transitive verb following a locative adverbial in my database was marked by the imperfective suffix, -ic. The adverbial particle was *tolo* 'out there,' and it replaced the aspectual head word:

- (86a) tolo a-ɔa-ic-Ø
 out-there 2sg-give-impf-3sg
 'place it over there!' (Ciudad Real 1600?: fol. 426r)

Later examples retained the incomplete particle:

- (86b) tì c-in-ppat-ic-Ø ah-cumkal-i
 there incomplete-1sg-leave-impf-3sg ag-Conkal-encl
 'there I leave [the land of] the Conkal people' (Barrera Vásquez 1984:25, lines 158–159)
- (86c) uay c-in-ppat-ic-Ø ah-cumkal-ob-la-e
 here complete-1sg-leave-impf-3sg ag-Conkal-3pl-prox-encl
 'here I leave [the land of] these Conkal people' (CHX-134)

There are no Colonial examples of such verbs following a locative adverbial that were also inflected for the remote future.

The immediate past of transitive verbs in a focused locative adverbial context is represented by two Colonial examples:

- (87a) tab-x t-av-il-ah-Ø ix-nuc-ob
where-interrog completive-2sg-see-perf-3sg fem-woman-3pl
 'where did you see the old woman?' (Gordon 1913:69)
- (87b) lai cah-ob u-bin-ell-ob he=tux y-ol-ah-ob-e
 det town-3pl 3sg-go-impf-3pl where=ever 3sg-heart-perf-3pl-encl
 'these people are the ones who were going wherever they pleased' (HB783A-029A-C)

Both of them are preceded by locative interrogative pronouns (tab-x, he=tux). The completive clitic particle appears in the first example, but not in the second.

There are no examples in my Colonial database of transitive verbs following locative adverbials that are also inflected for the historical past.

The transition from Colonial to Modern Yucatec had essentially no effect on the inflection of imperfective transitives that followed locative adverbial particles:

- (88a) le tú?uś k-uy-il-(i)k-Ø-ó?ob' u-krusàar máak té?e b'éeh liinyá-o?
 det where incomplete-3sg-see-impf-3sg-3pl 3sg-cross person there road line-dist
 'where they would see someone cross that [rail]road line there' (V. Bricker 1981a:240, lines 693–694)
- (88b) tí? k-u-č'(á)-ik-Ø-ó?ob' le kàartá-o?
there incomplete-3sg-place-impf-3sg-3pl det letter-dist
 'there they placed that letter' (V. Bricker 1981a:240, line 699)
- (88c) tú?uś k-uy-il-(i)k-ó?on-ó?ob'-o? b'éy u-č'on-(i)k-ó?on-ó?ob'
where incomplete-3sg-see-impf-1pl-3pl-dist thus 3sg-shoot-impf-1pl-3pl
 'wherever they see us, they shoot us' (V. Bricker 1981a:241, lines 731–732)

The aspectual suffix associated with the remote future is -eh/-Ø for transitive verbs after locative adverbial particles in Modern Yucatec:

- (89) k-u-pul-(i)k-eč hé?e=tú?uś b'íin uy-óoh-t-Ø-Ø-e?
 incomplete-3sg-hurl-impf-2sg where=ever future 3sg-heart-trans-subj-3sg-encl
 'he would hurl you wherever he pleased' (V. Bricker 1981a:219, line 11)

The perfective stem of transitive verbs with focused locative adverbial particles is marked by -ah, continuing the pattern associated with the immediate past in Colonial Yucatec:

- (90a) way t-uy-il-ah-Ø-e?
here completive-3sg-see-perf-3sg-encl
 'he saw it here' (V. Bricker et al. 1998:301)
- (90b) tí?-i? tí? t-kan-ah-Ø-i?
there-partit, there 1pl-learn-perf-3sg-partit
 'there, we learned it there' (Blair and Vermont-Salas 1965:52)

2.4.3.2. FOCUSED LOCATIVE ADVERBIALS WITH INTRANSITIVE STEMS. The imperfective stem suffix for intransitive verbs after locative adverbials was -el in Colonial Yucatec:

- (91a) te v-ben-el cumkal-e
there 3sg-go-impf Conkal-encl
 'there he goes to Conkal' (Ciudad Real 1600?: fol. 415r)
- (91b) hun=auat hun=lub u-tal-el
one=shout one=league 3sg-come-impf
 'for one shout, one league he comes' (Gordon 1913:87)

The focused adverbial particle and numeral classifier phrases in these examples replaced the aspectual particle that normally appeared in the Basic Word Order.

The focusing of locative adverbials with intransitive verbs inflected for the remote future with bin produced an ergative split that contrasted the first- and second-person subjects with the third and marked them with the subjunctive suffix, -ebal:

- (92a) lay be bin man-ebal-Ø procesion
det road future pass-subj-3sg procession
 'this is the road on which the procession will pass' (Coronel 1620a:44)
- (92b) ciac-ciac bin in-ben-ebal
here-there future 1sg-go-subj
 'I will go here and there' (Ciudad Real 1600?: fol. 70v)

The same kind of ergative split characterized both the immediate and the historical pasts of intransitive verbs preceded by locative adverbials. The following examples illustrate the use of the immediate past in this focused context:

- (93a) tab-x au-oc-il a-tal-ic
where-interrog 2sg-foot-nom 2sg-come-perf
 'from where have you come?' (Ciudad Real 1600?: fol. 342r)
- (93b) hal tan pay ca-tal-ic
edge presence beach 1pl-come-perf
 'next to the beach we have come' (Ciudad Real 1600?: fol. 360r)

They are marked by the perfective suffix, -ic. The historical past of such intransitives was marked by the perfective suffix, -ci:

- (94a) ti hoo cah-ci-ob
prep Merida settle-perf-3pl
 'it was at Merida that they settled' (XIU685-025D)
- (94b) matuz a-bin-ci-ex-e
far 2sg-go-perf-2pl-encl
 'you-all went far from here' (Ciudad Real 1600?: fol. 301r)

In the transition from Colonial to Modern Yucatec, *bin* ‘to go,’ *man* ‘to pass,’ and *tal* ‘to come’ lost the use of *-el* as their imperfective suffix in the Basic Word Order. The imperfective examples, *tàal* and *máan*, after the locative particles, *té?e* ‘there’ and *tú?uś* ‘where,’ reflect this change:

- (95a) *té?e k-u-tàal-Ø ġ’òon-i?*
there incomplete-3sg-come-*impf* gun-*encl*
 ‘guns were coming there’ (V. Bricker 1981a:227, line 140)
- (95b) *tú?uś k-u-máan-Ø máak tú?uś k-u-tàal-Ø*
where incomplete-3sg-pass-*impf* person where incomplete-3sg-come-*impf*
 ‘where people passed, from where they came’ (V. Bricker 1981a:230, lines 273–274)

Another change is the retention of the incomplete aspect clitic particle, *k*, in such contexts (compare with [91a–b]).

The *-ebal* suffix that marked subjunctive intransitive stems in adverbially focused contexts is no longer in use, having been replaced by *-ak*. The remote future with *b’iin* also co-occurs with the *-ak* suffix in such contexts:

- (96) *tí? b’iin ká?a=čil-ak-en b’e=h(e)l-a? t-u-ká?a=tén-e?*
there future twice=lie down-*subj*-1sg thus=today-prox prep-3sg-twice=time-*encl*
 ‘I’ll lie down there today again’ (Blair and Vermont-Salas 1967:676)

I have only one Modern example of a perfective intransitive stem in a locative adverbial context:

- (97) *tí? k’á?al-Ø-Ø le ġ’òon-ó?ob’-o?*
there be locked up-*perf*-3sg det gun-3pl-dist
 ‘those guns were locked up there’ (V. Bricker 1981a:244, line 879)

The verb is passive and is marked with the same perfective suffix (*-ih/-Ø*) as intransitives in the Basic Word Order, instead of the *-ik* suffix that marks perfective intransitives with focused manner and temporal adverbials. The historical past had disappeared before the end of the Colonial period and for this reason is not represented in any context in Modern Yucatec.

2.5. INFORMATION QUESTIONS. The placement of interrogative pronouns at the beginning of clauses means that information questions represent a focused word order that distinguishes them from other kinds of questions, in which the interrogative particle appears elsewhere in the clause (see **4.** in Chapter 14).

The principal interrogative pronouns in Colonial Yucatec were *bal* or *bal-x* ‘what?’, *bahun* or *bahun-x* ‘how many?, how long?’, *bic-x* ‘how?’, *bikin*, *bikin-x*, or *biy=kin-x* ‘when?’, *hay* ‘how many?’, *mac* or *mac-x* ‘who?’, and *tab*, *taba*, *tab-x*, or *tub-x* ‘where?’ (see **8.** In Chapter 4).

The inflection of the transitive verbs that follow the interrogatives that refer to “who?” and “what?” agrees with the rules for agent- and patient-focused clauses described in **2.1.** and **2.2.** above. The following examples contrast the inflection of perfective agent- and patient-focus transitive stems with the interrogatives, *mac* and *mac-x* ‘who?’:

(98a) mac _ el-ez-Ø-Ø (in)v-otoch
who _ burn-caus-subj-3sg 1sg-home
 'who set my home on fire?' (Ciudad Real 1600?: fol. 164r)

(98b) mac-x t-au-il-ah-Ø ti be
who-interrog completive-2sg-see-perf-3sg prep road
 'whom did you see on the road?' (Gordon 1913:69)

The agent-focus example in (98a) lacks the aspectual and clitic pronominal particles, as well as the perfective suffix (-ah), that are present in the patient-focus example in (98b), agreeing perfectly with declarative examples of such clauses.

Similar characteristics distinguish agent- and patient-focus information questions introduced by bal-x 'what?':

(99a) bal-x _ ɔa-ic-Ø tech
what-interrog _ give-impf-3sg to-you
 'what does it do for you?' (Ciudad Real 1600?: fol. 48r)

(99b) bal-x c-a-pac(at)-t-ic-Ø
what-interrog incompletive-2sg-sight-trans-impf-3sg
 'what are you looking at?' (Ciudad Real 1600?: fol. 355r)

The transitive stems in these examples share the suffix, -ic, because the agent- and patient-focus stems are both inflected for the imperfective aspect; they are distinguished by the use of the incompletive and pronominal clitic particles in (99b), but not in (99a), as was also the case with the interrogative clauses beginning with mac and mac-x 'who?' in (98a-b) above.

The examples that follow show that passive and intransitive questions introduced by bal-x 'what?' also lack aspectual head words, but take the imperfective and perfective suffixes normally associated with such verbs:

(100a) bal-x _ v-kat-b-a| tech-e
what-interrog _ 3sg-ask-ps-impf to-you-encl
 'what is being asked of you?' (Ciudad Real 1600?: fol. 239v)

(100b) bal-x _ vch-i-Ø tech ti be
what-interrog _ happen-perf-3sg to-you prep road
 'what happened to you on the road?' (Ciudad Real 1600?: fol. 445r)

Information questions introduced by bikin and biy=kin-x 'when?' and taba or tab-x 'where?' also lack aspectual head words:

(101a) bikin _ a-bo(l)-t-ic-Ø a-ppax
when _ 2sg-payment-trans-impf-3sg 2sg-debt
 'when are you going to pay your debts?' (Ciudad Real 1600?: fol. 52r)

- (101b) bikin _ a-čhab-Ø-Ø a-čhup-(u)l-il
 when _ 2sg-take-subj-3sg 2sg-woman-nom-abstr
 'when will you marry? [literally, when might you take your wife?]' (Ciudad Real 1600?: fol. 52r)
- (101c) biy=kin-x _ v-tal-el a-yum
 thus=day-interrog _ 3sg-come-impf 2sg-father
 'when is your father coming?' (Ciudad Real 1600?: fol. 408r)
- (101d) tab-x _ a-ben-el
 where-interrog _ 2sg-go-impf
 'where are you going?' (Ciudad Real 1600?: fol. 396r)
- (101e) tab-x _ v-mal-Ø padre
 where-interrog _ 3sg-pass-impf priest
 'where does the priest pass?' (Ciudad Real 1600?: fol. 290v)
- (101f) taba _ a-čhacat-ah-Ø noh be
 where _ 2sg-cross-perf-3sg big road
 'where did you cross the highway?' (Ciudad Real 1600?: fol. 151r)

However, the manner adverbial interrogative particle, bic-x 'how?,' can occur with or without an aspectual head word:

- (102a) bic-x _ v-mal-el kin tech
 how-interrog _ 3sg-pass-impf time to-you
 'how is your life going?' (Ciudad Real 1600?: fol. 291r)
- (102b) bic-x bin av-utz-cin-ic-Ø-lo
 how-interrog fut 2sg-good-caus-impf-3sg-dist
 'how will you improve that?' (Ciudad Real 1600?: fol. 437r)

The example in (102b) resembles the patient-focus information question introduced by mac-x in the example below:

- (102c) mac-x bin in-ɔa-ic-Ø-e
 who-interrog fut 1sg-give-impf-3sg-encl
 'to whom will I give it?' (Ciudad Real 1600?: fol. 281r)

The aspectual head word, bin, that refers to the future appears in both cases because the agent is not the focus of either example.

Two kinds of interrogatives refer to quantities: (1) bahun and bahun-x 'how many?, how much?' and (2) hay 'how many?,' the interrogative that co-occurs with numeral classifiers. The following examples of bahun and bahun-x illustrate their multiple uses:

- (103a) bahun-x v-ben-el
 how-many-interrog 3sg-go-impf
 'how many are lacking?' (Ciudad Real 1600?: fol. 41r)

- (103b) bahun vinic-ob t-av-il-ah-Ø ti be
 how-many person-3pl completive-2sg-see-perf-3sg prep road
 'how many people did you see on the road?' (Ciudad Real 1600?: fol. 41v)
- (103c) bahun-x takin a-çam-t-ah-Ø ti be
 how-much-interrog money 2sg-expense-trans-perf-3sg prep road
 'how much money did you spend on the road?' (Ciudad Real 1600?: fol. 97v)
- (103d) bahun-x a-man-ci-Ø tzimin
 how-much-interrog 2sg-buy-perf-3sg horse
 'for how much did you buy the horse?' (Ciudad Real 1600?: fol. 293r)

The examples in (103b–c) behave like patient-focus information questions, in which the patient (vinic-ob 'people,' takin 'money') immediately follows the interrogative expression. The transitive verb in (103d) is marked with the perfective suffix (-ci) used in adverbial focus clauses, contrasting in this respect with the perfective transitives in (103b–c).

The other interrogative meaning 'how many?' is hay, which co-occurs with numeral classifiers (see Chapter 9). The numeral classifiers in the following examples are tul 'animate' and kaan 'length':

- (104a) hay-tul a-mehen-ob
how-many-nc 2sg-son-3pl
 'how many sons do you have?' (Ciudad Real 1600?: fol. 173r)
- (104b) hay-kaan a-col
how-many-nc 2sg-cornfield
 'how many lengths is your cornfield?' (Ciudad Real 1600?: fol. 237v)

For Modern Yucatec, it was possible to elicit minimal pairs that clarified the relationship between agent- and patient-focus information questions (V. Bricker 1979b:122):

- (105a) máaš _ ?il-ik-en
who _ see-impf-1sg
 'who sees me?'
- (105b) máaš k-aw-il-ik-Ø
who incompletive-2sg-see-impf-3sg
 'whom do you see?'
- (105c) máaš _ ?il-Ø-en
who _ see-subj-1sg
 'who saw me?'
- (105d) máaš t-aw-il-ah-Ø
who completive-2sg-see-perf-3sg
 'whom did you see?'

The principal difference between the agent-focus questions in (105a) and (105c) and the patient-focus questions in (105b) and (105d) is that there are no aspectual or clitic pronominal particles in the agent-focus examples, which are present in the patient-focus examples.

The Hocaba dictionary of Modern Yucatec contains additional examples of agent-focus questions that lack aspectual and clitic pronominal particles, with *máaš* 'who?' as the interrogative pronoun:

- (106a) *máaš* ʔak-táan-t-Ø-Ø teč š-č'úup-al
 who ʔ-presence-trans-subj-3sg to-you fem-girl-nom
 'who accompanied you, girl?' (V. Bricker et al. 1998:2)
- (106b) *máaš* híiç'-t-Ø-Ø (l)e púuç' tí? (l)e nòok'-a?
 who extract-trans-subj-3sg det needle prep det cloth-prox
 'who pulled the needle from this cloth?' (V. Bricker et al. 1998:105)
- (106c) *máaš* ʔáʔal-Ø-Ø táan in-tùukul-
 who say-subj-3sg durative 1sg-think-impf
 'who said that I was thinking?' (V. Bricker et al. 1998:283)

There are also patient-focus questions introduced by *máaš* and *b'áʔaš* in the Hocaba dictionary that retain the particles that are missing in agent-focus questions:

- (107a) *máaš* t-aw-ilib'-t-ah-Ø
 who completive-2sg-daughter-in-law-trans-perf-3sg
 'whom did you take for a daughter-in-law?' (V. Bricker et al. 1998:13)
- (107b) *b'áʔaš* t-a-ç'á-ah-Ø ten
 what completive-2sg-give-perf-3sg to-me
 'what did you give me?' (V. Bricker et al. 1998:47)
- (107c) *b'áʔaš* k-a-čak-ik-Ø š-piil
 what incompletive-2sg-boil-impf-3sg fem-Phyllis
 'what are you boiling, Phyllis?' (V. Bricker et al. 1998:61)
- (107d) *b'áʔaš* k-u-b'èet-ik-Ø h-wàan ho?
 what incompletive-3sg-do-impf-3sg masc-John Merida
 'what is John doing in Merida?' (V. Bricker et al. 1998:207)

For examples of such questions introduced by *máaš* with other aspectual inflections, see V. Bricker (1979b: 122, 125, 127).

Other information questions in Modern Yucatec employ adverbial interrogatives that refer to location and time, as in the following examples with the interrogative particle, *túʔuš* 'where?', and the interrogative compound, *b'áʔaš=k'íin* 'when?':

- (108a) *túʔuš* t-a-ç'á-ah-Ø in-nòok'
 where completive-2sg-put-perf-3sg 1sg-clothes
 'where did you put my clothes?' (V. Bricker et al. 1998:47)

(108b) čan wíinik túʔuś k-a-b'in-Ø
 little man where incompletive-2sg-go-impf
 'little man, where are you going?' (V. Bricker et al. 1998:63)

(108c) b'áʔaś=k'iin _ a-b'in-Ø ho?
what=day _ 2sg-go-impf Merida
 'when will you go to Merida?' (V. Bricker et al. 1998:27)

(108d) b'áʔaś=k'iin-hak _ b'in-Ø-eč ho?
what=day-ago _ go-perf-2sg Merida
 'when did you go to Merida?' (V. Bricker et al. 1998:27)

The use of b'in 'to go' in (108b–d) is instructive because it highlights the difference between information questions that begin with locative and temporal interrogatives. In the first case (108b), túʔuś 'where?' is followed by the incompletive aspectual particle, k-. In the second (108c), the temporal interrogative, b'áʔaś-kiin 'when?', is not followed by an aspectual particle. In the third (108d), the same temporal interrogative has a suffix, -hak 'ago,' that places the verb in the past. The aspectual particle is apparently unnecessary in information questions introduced by temporal adverbial expressions, which establish their own temporal parameters.

On the other hand, the manner interrogative, b'íš 'how?', employs an aspectual particle with perfective transitive verbs, but not imperfective transitive verbs:

(109a) b'íš t-a-hač'-il-en
how completive-2sg-hit-nom-1sg
 'how did you hit me?' (V. Bricker 1981b:118)

(109b) b'íš _ aw-il-ik-Ø le way-a?
how _ 2sg-see-impf-3sg det here-prox
 'how do you like it here?' (Blair and Vermont-Salas 1965:47)

Questions about measurement and quantity employ the interrogatives, b'ukáʔah 'how much ~ many?', b'ahuś 'how much?', and hay 'how many?', which co-occurs only with numeral classifiers:

(110a) b'ukáʔah k'iin u-b'in-Ø a-b'in-Ø
how-many day 3sg-go-impf 2sg-go-impf
 'how many days are left until you go?' (V. Bricker et al. 1998:37)

(110b) b'ukáʔah a-tàak'in yàan
how-much 2sg-money exist
 'how much money do you have?' (V. Bricker et al. 1998:37)

(110c) b'ahuś t-u-tohol-t-ah-Ø
how-much completive-3sg-cost-trans-perf-3sg
 'how much did it cost?' (V. Bricker et al. 1998:279)

- (110d) b'ahuš u-šùul
how-much 3sg-limit
how much is your final [price]? (V. Bricker et al. 1998:264)
- (110e) hay-p'éel t'àan aw-òohel-Ø
how-many-nc language 2sg-know-3sg
'how many languages do you know? (Blair and Vermont-Salas 1965:49)
- (110f) hay-lòoč yàan tí? le b'eh-o?
how-many-nc exist prep det road-dist
'how many curves does that road have? (V. Bricker et al. 1998:170)
- (110g) hay-to? wàah t-a-man-ah-Ø
how-many-nc tortilla completive-2sg-buy-perf-3sg
'how many bundles of tortillas did you buy? (V. Bricker et al. 1998:277)

The numeral classifiers in (110e-g) are p'éel 'thing,' lòoč 'bend, curve,' and to? 'bundle.'

2.6. CONCLUSIONS. Colonial Yucatec had a well-developed system of focused adverbial particles and compounds with its own aspectual suffixes for transitive and intransitive verbs and its own type of split ergativity based on a person hierarchy, instead of aspectual distinctions. Only two features of the Colonial system are still evident in Modern Yucatec, namely the marking of perfective intransitives with -ik and transitives with -il (after focused manner adverbials only). Over time, the other characteristics of the traditional system were replaced by those associated with the Basic Word Order (see Table 16-3).

3. TOPICALIZATION

Focus was not the only syntactic option used in Colonial Yucatec for fronting a noun or nominal phrase, nor is it in Modern Yucatec today. Topicalization provided another means for accomplishing that objective in Colonial times. With it, some person or object mentioned in passing in a conversation or written text could be retrieved for additional comment, and that option is in frequent use today.

The deictic frame, he ... e, was commonly used for this purpose in Colonial Yucatec:

- (111a) he cal-h-al-e lay v-naa vch-ac-il
as for drunk-inch-nom-top det 3sg-mother happen-subj-nom
'as for inebriation, this is the mother
- çip-il t-u-lac-al la-ix tal-ebal-Ø koch
 sin-nom prep-3sg-all-nom det-and come-subj-3sg fault
 of all sins that come from faults' (Ciudad Real 1600?: fol. 408r)
- (111b) he icham-bil-ob-e
as for husband-nom-3pl-top
'as for husbands,

v-nah v-yacun-Ø-Ø v-čhup-ill-ob
 3sg-obligation 3sg-love-subj-3sg 3sg-woman-nom-3pl
 they should love their wives' (Ciudad Real 1600?: fol. 223v)

- (111c) he tun sant fran^{co} padre-s-ob-e
as for then holy Franciscan father-pl-3pl-top
 'as for the holy Franciscan fathers then,

hach tibil v-thān-ob toon
 very nice 3sg-speak-3pl to-us
 very nicely do they speak to us' (MID567:fol. 365, lines 30–31)

- (111d) he v-molay ah-oc-ol-al-ob t-u-lac-al-e
as for 3sg-congregation ag-enter-heart-nom-3pl prep-3sg-all-nom-top
 'as for the congregation of all believers,

bay v-bay-el y-et-el v-ɔac-al v-bac-el-il
 thus 3sg-body-nom 3sg-with-nom 3sg-add-nom 3sg-limb-nom-nom
 it is like the body with the addition of limbs

vinic v-cah hun-hun-tul ti-ob-e
 person 3sg-go one-one-nc prep-3pl-encl
 of each person' (Ciudad Real 1600?: fol. 42r)

Occasionally, the terminal deictic alone served as the topicalizer in Colonial Yucatec:

- (112a) le vino-e y-ah-hop-ç-ah-ul tzucach-il
 det wine-top 3sg-ag-burn-caus-perf-nom lewd-nom
 'as for wine, it is the inducement for lewdness' (Ciudad Real 1600?: fol. 18r)

- (112b) y xan t-u-stô convento-e uaxac-tul tzimin
 and also prep-3sg-holy convent-top eight-nc horse
 'and also in his holy convent, eight horses

c-u-tzen-t-ab-al t-u-men ca-tul-ili
 incompletive-3sg-adoptee-trans-ps-impf prep-3sg-deed two-nc-only
 are being cared for by only two

h-semana-ob x-ma-ma han-(a)l-il
 ag-week-3pl and-not-not food-nom-nom
 weekly laborers without meals' (HB784C-217A-D)

- (112c) t-u-men t-u-kin-il col-e tan u hok-s-ab-al
 prep-3sg-deed prep-3sg-time-nom fell-top durative 3sg-leave-caus-ps-impf
 'because during the time of felling [bush], they were being caused to leave' (HB784B-105A-B)

In Modern Yucatec, topicalization is marked by the terminal deictic, *-eʔ*, alone:

- (113a) ʔáak'ab'-*eʔ* k-u-ʔéeʔ-hoʔč-éʔen-kúun-s-ik-Ø t-u-láak-al
 night-top incomplete-3sg-black-ʔ-aj-caus-caus-impf-3sg prep-3sg-all-nom
 'as for night, it causes everything to become dark' (V. Bricker et al. 1998:7)
- (113b) háʔaʔ-kab' k'iin-*eʔ* síis-ʔóol
 be divided-earth day-top cold-heart
 'as for the morning, it is cool' (V. Bricker et al. 1998:92)
- (113c) u-t'àan-il in-kàah-al-*eʔ* máʔ t-a-náʔat-ik-Ø
 3sg-language-nom 1sg-town-nom-top not durative-2sg-understand-impf-3sg
 'as for the language of my town, you don't understand it' (V. Bricker et al. 1998:289)

Topicalization is not limited to nouns and noun phrases in Modern Yucatec. Verbs can also appear in topicalized phrases:

- (114a) p'eleč kóoh-(i)k-en-*eʔ* káʔah hàan-Ø-en
 scarcely arrive-perf-1sg-top when eat-perf-1sg
 'I had scarcely arrived when I ate' (V. Bricker et al. 1998:228)
- (114b) le máaš u-k'áat-*eʔ* yàan k'úum
 det who 3sg-want-top exist pie-pan squash
 'as for the person who wants it, there is pie-pan squash,
- yàan ʔ'óol yàan š-kaʔ p'àak yàan ʔiib' šan
 exist long-squash exist clas-round-squash, tomato, exist bean also
 there is long squash, there is round squash, tomatoes, there are beans too' (V. Bricker et al. 1998:149)

Apart from singling out a topic to comment on, topicalized phrases provided a context for the comment that follows. When asked to provide example sentences, native speakers of Yucatecan Maya use topicalization to provide a context for them. That is why many of the example sentences in the Hocaba dictionary of Modern Yucatec (V. Bricker et al. 1998) begin with a topicalized phrase and continue with a comment that contains an example of the dictionary entry in question.

4. STATIVE AND EQUATIONAL CLAUSES

Neither Colonial nor Modern Yucatec have verbs meaning 'to be' or 'to have.' Instead, they have stative or non-verbal predications, in which nominal or adjectival stems are marked with pronominal suffixes that serve as their subjects, but they are not marked for tense/aspect or mood. The existential predicate, *yan*, provides an alternative way of referring to possession.

4.1. THE FORMATION OF STATIVE CLAUSES. As mentioned in (13a-b) in Chapter 4, the suffixation of dependent pronouns to nominal and adjectival stems transforms them into stative or equational expressions,

obviating the need for a verb 'to be.' The noun, uinic 'man, woman, person,' functioned as a stative verb in the following clauses in Colonial Yucatec:

- (115a) noh vinic-en
 right-handed person-1sg
 'I am a right-handed person [not left-handed]' (Ciudad Real 1600?: fol. 330r)
- (115b) puɔ-ul vinic-ech va
 flee-aj person-2sg interrog
 'are you a fugitive person?' (Ciudad Real 1600?: fol. 383v)
- (115c) ma kuun vinic-Ø
 neg gentle person-3sg
 'he is not a gentle person' (Ciudad Real 1600?: fol. 254v)
- (115d) cʰe-cʰeh-ci vinic-ob ti y-otoch ku
 tight-aj person-3pl prep 3sg-home God
 'people are tightly pressed together in church' (Ciudad Real 1600?: fol. 154r)

The stative noun is preceded by an adjective in each case that attributes a quality to it (right-handed, fugitive, not gentle, tightly pressed together).

Nouns in equational clauses could also be inflected for possession in Colonial Yucatec:

- (116a) nach in-booy-Ø
 long 1sg-shadow-3sg
 'my shadow is long' (Ciudad Real 1600?: fol. 317r)
- (116b) pap in-ich-Ø t-u-men buɔ
 burning 1sg-eye-3sg prep-3sg-deed smoke
 'my eyes are burning because of the smoke' (Ciudad Real 1600?: fol. 367r)
- (116c) ppuz v-boc-Ø vay-e
 musky 3sg-odor-3sg here-encl
 'the odor is musky here' (Ciudad Real 1600?: fol. 393r)
- (116d) vtz v-cal-Ø
 good 3sg-voice-3sg
 'his voice is good' (Ciudad Real 1600?: fol. 63r)
- (116e) kam v-than-Ø
 strong 3sg-voice-3sg
 'his words are strong' (Ciudad Real 1600?: fol. 236v)
- (116f) bolon-te uitz u-kaba-Ø u-lum-il-la-e
 nine-nc hill 3sg-name-3sg 3sg-land-nom-prox-encl
 'the name of this land of theirs is nine hills' (Gordon 1913:77)

Adjectival phrases could also precede nouns in equational clauses in Colonial Yucatec:

- (117a) cij-ob y-ol in-mehen-ob
sweet-3pl 3sg-heart 1sg-son-3pl
 'my sons are happy' (Ciudad Real 1600?: fol. 73v)
- (117b) hal-ach vtz v-beel-Ø padre-lo
true-aj good 3sg-road-3sg priest-dist
 'the way of that priest is truly good' (Ciudad Real 1600?: fol. 176r)
- (117c) chauac v-kab Juan ti ocol
long 3sg-arm John prep stealing
 'John has long arms for stealing!' (Ciudad Real 1600?: fol. 138r)

Equational clauses could contain a nominal phrase, instead of a single noun, in Colonial Yucatec:

- (118a) kep v-chij-Ø a-nok
uneven 3sg-edge-3sg 2sg-cloth
 'the edge of your cloth is uneven' (Ciudad Real 1600?: fol. 244v)
- (118b) v-tʰup-il-en v-mehen-ob
3sg-youngest-child-nom-1sg 3sg-son-3pl
 'I am the youngest of his sons' (Ciudad Real 1600?: fol. 435v)
- (118c) in-mam batab y-al (in)v-ix-cit
1sg-cousin leader 3sg-son 1sg-fem-mother's-sister
 'my cousin is the leader, the son of my mother's sister' (Ciudad Real 1600?: fol. 292r)
- (118d) v-chun ca-tʰan Juan
3sg-head 1pl-word John
 'our leader is John' (Ciudad Real 1600?: fol. 149r)

Equational clauses could also be introduced by the initial deictic, *lay* 'this,' in Colonial Yucatec:

- (119a) lay v-kex-ul t-a-pach-lo
det 3sg-change-nom prep-2sg-back-dist
 'that is your successor [and heir]' (Ciudad Real 1600?: fol. 245v)
- (119b) lay in-bool tech mehen-la-e
det 1sg-payment to-you son-prox-encl
 'this is my wage for you, son!' (Ciudad Real 1600?: fol. 54v)
- (119c) lay v-mul=tumut-la-e
det 3sg-together=decision-prox-encl
 'this is their joint decision' (Ciudad Real 1600?: fol. 313r)

Equational clauses sometimes began with topicalized phrases in Colonial Yucatec:

- (120a) he ah-sabac na-il-e
here agn-soot house-nom-top
 'as for the man of Soot House here,
 v-chun v-uinic-il ah-na
 3sg-first 3sg-person-nom agn-house
 he is the first of the Na family' (Gordon 1913:9)

- (120b) he-ix nohoch na-la-e
here-and large house-prox-top
 'and this large house here,
 lay y-ahau ppoc ɔoc-la-e
 det 3sg-enormous hat palm-prox-encl
 this is an enormous palm hat' (Gordon 1913:30)

Similar constructions occur in Modern Yucatec:

- (121a) tòoh inw-óol-Ø
 straight 1sg-heart-3sg
 'I am fine [literally, my heart is straight]' (V. Bricker et al. 1998:18)
- (121b) miš=b'áʔal im-b'èel-Ø
 no=thing 1sg-road-3sg
 'I am worthless [literally, my road is nothing]' (V. Bricker et al. 1998:29)
- (121c) ʔuʃ t-inw-ič-Ø t-u-láak-al
good prep-1sg-eye-3sg prep-3sg-all-nom
 'I like it all' (Blair and Vermont-Salas 1965:48)
- (121d) le-laʔ u-pak'-(a)l-il in-kòol
det-prox 3sg-plant-nom-nom 1sg-cornfield
 'this is the planting of my cornfield' (V. Bricker et al. 1998:206)
- (121e) le p'óok-aʔ hač kóʔoh
det hat-prox very expensive
 'this hat is very expensive' (V. Bricker et al. 1998:131)
- (121f) nòok' yáʔaš-eʔ máʔ ʔuʃ t-inw-ič-iʔ
 clothes green-top not good prep-1sg-eye-partit
 'as for green clothes, I don't like them' (V. Bricker et al. 1998:312)
- (121g) u-k'àay š-piil-eʔ séen haʃ'uʃ'
 3sg-song fem-Phyllis-top very beautiful
 'as for Phyllis's song, it is very beautiful' (V. Bricker et al. 1998:149)

4.2. THE EXISTENTIAL PREDICATE, YAN. Colonial and Modern Yucatec have an indirect method of expressing ‘to have’ with the existential predicate *yan* ‘exist.’ This predicate can also be found in locational clauses.

4.2.1. EXPRESSING “TO HAVE” WITH YAN. Clauses express possession with *yan* in two ways: (1) in one, *yan* is followed by a noun that is inflected for possession with a clitic pronoun that serves as the subject of the clause; (2) the other is an indirect construction, in which *yan* is followed by a prepositional phrase. The difference between the two kinds of clauses can be illustrated by the following minimal pair of examples on folio 293r of the *Calepino de Motul* (Ciudad Real 1600?):

(122a) *yan v-ppuz Ju°*
 exist 3sg-hump John
 ‘John has a hump’

(122b) *yan ppuz ti Juan*
 exist hump prep John
 ‘John has a hump’

A comparable minimal pair of examples in Modern Yucatec (Blair and Vermont-Salas 1965:137) suggests the continuity of this contrast into recent times:

(123a) *yàan in-ǵiimin*
 exist 1sg-horse
 ‘I have a horse’

(123b) *yan ten ǵiimin*
 exist to-me horse
 ‘I have a horse’

A third possibility in Modern Yucatec may have a somewhat different meaning (1965:137):

(123c) *yàan ten in-ǵiimin*
 exist to-me 1sg-horse
 ‘I have my horse’

The following examples provide additional evidence of the first option in Colonial Yucatec:

(124a) *yan va a-yum*
 exist interrog 2sg-father
 ‘do you have a father?’ (Ciudad Real 1600?: fol. 215v)

(124b) *yan in-ppax ti hun-tul ɔul*
 exist 1sg-debt prep one-nc Spaniard
 ‘I have debts to a Spaniard’ (Ciudad Real 1600?: fol. 387v)

(124c) *ti kaax yan v-cuch-il*
 prep forest exist 3sg-estate-nom
 ‘he has a residence in the woods’ (Ciudad Real 1600?: fol. 86v)

Additional Colonial examples of the second option appear below:

- (125a) kux=hol yan ten
 painful=head exist to-me
 'I have a headache' (Ciudad Real 1600?: fol. 255v)
- (125b) ma=bal yan ten
 no=thing exist to-me
 'I have nothing [i.e., I am poor]' (Ciudad Real 1600?: fol. 279r)

Some additional examples of the first option in Modern Yucatec include:

- (126a) yàan u-kó?olel
exist 3sg-woman
 'he has a woman' (V. Bricker et al. 1998:133)
- (126b) hač yá?ab' im-pak'-al yàan
 very much 1sg-plant-nom exist
 'I have many plantings' (V. Bricker et al. 1998:206)
- (126c) b'uká?ah a-tàak'in yàan
 how-much 2sg-money exist
 'how much money do you have?' (V. Bricker et al. 1998:37)

The second option is also well represented in Modern Yucatec:

- (127a) yàan kó?oy tī?-Ø
exist rabies to-him
 'he has rabies' (V. Bricker et al. 1998:135)
- (127b) yàan ten tàak'in ġ'ok=luk'-ul
exist to-me money finish=leave-aj
 'I have sufficient money' (V. Bricker et al. 1998:53)
- (127c) yàan un-túl ġiimin tī? im-papah šan
exist one-nc horse to 1sg-father also
 'my father has a horse too' (Blair and Vermont-Salas 1965:138)
- (127d) b'á?aş=?òorah yàan teč
 what=hour exist to-you
 'what time do you have?' (V. Bricker et al. 1998:27)

The negative of *yan* was *manaan* or *manan*, a conflation of *ma=yan*, in Colonial Yucatec, and it could serve as a surrogate for the negative of "to have":

- (128a) manaan in-yum
 not=exist 1sg-father
 'I have no father' (Ciudad Real 1600?: fol. 295r)

- (128b) manaan v-nooy
 not=exist 3sg-pith
 'it has no flesh' (Ciudad Real 1600?: fol. 331r)
- (128c) manaan in-muk
 not=exist 1sg-strength
 'I have no strength' (Ciudad Real 1600?: fol. 311r)
- (128d) manaan v-cux y-ol Juan
 not=exist 3sg-life 3sg-heart John
 'John does not have judgment' (Ciudad Real 1600?: fol. 91r)

The example in (128a) represents a negative response to the example in (124a).

As explained in **2.3.3.** in Chapter 3, the schwa represented by "a" in the first syllable of *manaan* was eventually raised to "i," producing *mináʔan* as the cognate of this word in Modern Yucatec:

- (129a) mináʔan im-p'aaš
 not=exist 1sg-debt
 'I have no debts' (V. Bricker et al. 1998:226)
- (129b) mináʔan in-šòok b'e=h(e)l-áʔ-eʔ
 not=exist 1sg-lecture thus=today-prox-encl
 'I have no lecture today' (V. Bricker et al. 1998:261)
- (129c) tak b'e=h(e)l-áʔ-eʔ mináʔan ten miš=b'áʔal
 until thus=today-prox-encl not=exist to-me no=thing
 'until today, I have nothing' (V. Bricker et al. 1998: 268)
- (129d) mináʔan tóʔon tàak'in
 not=exist to-us money
 'we don't have money' (Blair and Vermont-Salas 1965:38)
- (129e) mináʔan in-mùuk'
 not=exist 1sg-strength
 'I am weak [literally, I have no strength]' (V. Bricker et al. 1998:189)

The example in (129d) has a positive Modern counterpart in (127b), and the examples in (129c) and (129e) have comparable negative Colonial counterparts in (125b) and (128c), respectively.

4.2.2. YAN IN LOCATIONAL CLAUSES. The locational function of *yan* is evident in the following examples in Colonial Yucatec:

- (130a) tij yan ti y-otoch
 there exist prep 3sg-home
 'there he is in his home' (Ciudad Real 1600?: fol. 215v)

- (130b) hun=haab yan-en vay-e
 one=year exist-1sg here-encl
 'I have been here for one year' (Ciudad Real 1600?: fol. 202v)
- (130c) noh tepal yan ti caan
 great glory exist prep heaven
 'great glory exists in heaven' (Ciudad Real 1600?: fol. 417r)
- (130d) tub-x yan v-nuc-il vinic-ob
 where-interrog exist 3sg-principal-nom person-3pl
 'where are the principal men?' (Ciudad Real 1600?: fol. 333v)
- (130e) hay-te yan ti ho
 how-many-nc exist prep Merida
 'how many leagues are there to Merida?' (Ciudad Real 1600?: fol. 174v)
- (130f) xic ti nohol ti yan mul=tun t-u-chun catzim
 might-go prep south rel exist pile=stone prep-3sg-trunk acacia
 'it might go to the south where there is a stone boundary marker at the trunk of an Acacia gaumeri tree' (SB596C-249-250)

The locational function also characterized some negative statements based on man(a)an in Colonial Yucatec:

- (131a) ma=bal vch-uc-Ø av-utz-cin-ic-Ø-ex
 no=thing happen-subj-3sg 2sg-good-caus-impf-3sg-2pl
 'you-all can improve nothing'

ti manaan-en-i
there not=exist-1sg-partit
 if I am not there' (Ciudad Real 1600?: fol. 295r)
- (131b) manan in-hul-an vay-e
not=exist 1sg-equivalent-partic here-encl
 'there is no fellow creature of mine here' (Ciudad Real 1600?: fol. 194v)
- (131c) manaan v-nuuc v-cux-tal vay-e
not=exist 3sg-manner 3sg-life-pos here-encl
 'there is no way to live here!' (Ciudad Real 1600?: fol. 333r)
- (131d) ma=tab manan pec=ol-tzil
no=where not=exist move=heart-aj
 'nowhere is without danger:

 pec=ol-tzil ti kax pec=ol-tzil t-u-yam vinic-ob
 move=heart-aj prep forest move=heart-aj prep-3sg-between person-3pl
 danger in the forest, danger among people' (Ciudad Real 1600?: fol. 371r)

The locational function of *yàan* is equally clear in Modern Yucatec:

- (132a) *yàan* ʔóo(l)-tzil-il *t-in-kàah-al*
 exist heart-aj-abstr prep-1sg-town-nom
 'there is poverty in my town' (V. Bricker et al. 1998:14)
- (132b) *túʔuʃ yàan im-p'óok'*
 where-interrog exist 1sg-hat
 'where is my hat?' (V. Bricker et al. 1998:232)
- (132c) *h-pèedró-eʔ tíʔ yàan t-u-čéʔ-eʔ*
 masc-Peter-top there exist prep-3sg-jail-encl
 'Peter, he's in jail there' (V. Bricker et al. 1998:64)
- (132d) *ʔ'áah-Ø ten in-toʔ yàan téʔe-loʔ*
 give-3sg to-me 1sg-bundle exist there-dist
 'give me my bundle that is over there!' (V. Bricker et al. 1998:277)

Negative statements based on *mináʔan* can also have a locational function in Modern Yucatec:

- (133a) *kóoh-Ø-Ø ten mináʔan h-wàan t-u-tàanah*
 arrive-perf-3sg to-me not=exist masc-John prep-3sg-home
 'I thought that John was not at home' (V. Bricker et al. 1998:131)
- (133b) *le káʔah tàal-Ø-Ø-eʔ mináʔan-en way-eʔ*
 det when come-perf-3sg-top not=exist-1sg here-encl
 'when he came, I was not here' (V. Bricker et al. 1998:165)

5. DOUBLE VERB SEQUENCES

The Basic and Focused Word Orders considered in 1. and 2. above are concerned with the syntax of clauses containing a single verb, although in a few examples, the aspectual head word represents a second verb. There are also clauses in Colonial and Modern Yucatec with double verb sequences in which neither verb has an aspectual function.

5.1. ASPECTUAL HEAD WORDS IN DOUBLE VERB SEQUENCES. Two aspectual head words in Colonial Yucatec were intransitive verbs in their own right, and for that reason were themselves fully inflected for aspect and person, even when performing an aspectual function for the verbs that followed them. The verbs in question were *hopp* 'to begin' and *ɔoc* 'to end,' which marked the inceptive and terminative aspects, respectively. The suffix, -i, in the following examples of these aspectual head words marks them as perfective intransitive verbs:

- (134a) *ca-ix hopp-i-Ø v-xoc-ol v-con kax*
 then-and begin-perf-3sg 3sg-be counted-impf 3sg-sell forest
 'and then the price of the forest of Diego Uc and Gaspar Uc

Diego Vc y Gaspal Vc y Fran^{co} Vc
 Diego Uc with Gaspar Uc with Francisco Uc
 and Francisco Uc began to be calculated' (MA733C-229A-C)

- (134b) ca t-hopp-i-Ø u-ɔa-ic-Ø
 then completive-begin-perf-3sg 3sg-give-impf-3sg
 'then he began to do

ton u-yab-al lob
 to-us 3sg-much-nom harm
 much harm to us' (HB784C-207D-E)

- (134c) ca ti ɔoc-i-Ø v-kam-ic-ob
 then completive end-perf-3sg 3sg-receive-impf-3pl
 'then the magistrates and councilmen finished receiving

ho-tuc-kal peso alcaldes y regidores
 five-nc-twenty peso magistrates and councilmen
 twenty-five pesos' (MA733E-540A-C)

- (134d) ti ɔoc-i-Ø u bo(l)-t-ic-ob
 completive end-perf-3sg 3sg-payment-trans-impf-3pl
 'they finished paying for

u-lik-ç-ah-Ø katun-ob ca-yum-oob
 3sg-rise-caus-perf-3sg war-3pl 1pl-father-3pl
 the wars that our fathers initiated' (Gordon 1913:66)

There are also a few examples of the use of the imperfective stems of these intransitive verbs as aspectual head words in Colonial Yucatec:

- (135a) bai tun las tres akab u-ti-al y-ah-al cab-e
 thus then the three night 3sg-prep-nom 3sg-awaken-impf earth-encl
 'thus, then, at three o'clock at night before dawn,

c-u-hopp-ol c-meyah-Ø minan ven-el ton
 incompletive-3sg-begin-impf 1pl-work-impf not=exist sleep-nom to-us
 we begin working without having slept' (HB784C-216A-D)³

- (135b) bai bic c-u-ɔoc-ol c-man-s-ic-Ø
 thus how incompletive-3sg-end-impf 1pl-pass-caus-impf-3sg
 'thus how we finish experiencing

u-yab-al num=ya
 3sg-much-nom suffering
 much suffering' (HB784C-204A-B)

As explained in 1.1.2. in Chapter 5, the aspectual suffix, *-i*, that once marked intransitives as perfective eventually was replaced by *-Ø*, except when the verb occurred at the end of a clause, and this was equally true of the verbs that functioned as aspectual head words:

- (136a) *ɔoc-Ø-Ø tun c-sut-ik-Ø u-hel u-takin*
 end-perf-3sg then 1pl-return-impf-3sg 3sg-leftover 3sg-money
 'then we finished returning the rest of his money' (EBT795A)
- (136b) *ca t-hopp-Ø-Ø in-than-Ø*
 when completive-begin-perf-3sg 1sg-speak-impf
 'when I began speaking with my children
- y in-sih-s-ah-bil-ob vay y ok-ol cab-e*
 with 1sg-be born-caus-perf-nom-3pl here 3sg-upon-nom earth-encl
 here in the world' (V. Bricker 1981a:188, lines 11–13)

Similar examples occur today in Modern Yucatec:

- (137a) *káʔah túun hóʔop'-Ø-Ø u-tàal-Ø-óʔob' b'in-eʔ*
 and then begin-perf-3sg 3sg-come-impf-3pl say-encl
 'and then they began coming, it is said' (CHK979)
- (137b) *ʔ'óʔok-Ø-Ø u-ʔ'á-ik-Ø ten u-ʔ'óok in-tàak'in*
 end-perf-3sg 3sg-give-impf-3sg to-me 3sg-leftover 1sg-money
 'he already gave the rest of my money to me' (V. Bricker et al. 1998:53)

It is clear that *hóʔop'* and *ʔ'óʔok* have become grammaticalized as aspectual head words in Modern Yucatec, but this does not mean that they have ceased to be verbs in this context because "the affirmative response to questions like *ʔ'óʔok a hanal* 'have you finished eating?' and *hóʔop' u meyah* 'did he finish working?' is *ʔ'óʔokiḥ* and *hóʔop'iḥ*, respectively" (V. Bricker 1981b:85). The perfective suffix, *-ih*, appears because nothing follows the verbs in the replies.

5.2. COMPLEMENT CONSTRUCTIONS. There are also double-verb sequences in Colonial and Modern Yucatec in which the initial verb (the main verb) does not function as an aspectual head word. The main verb could be either intransitive or transitive, and so could the verb that immediately followed it (the complement). In the following examples from Colonial Yucatec, both verbs are intransitive:

- (138a) *licil v-bin-el v-ximbal-Ø kin*
 incomplete 3sg-go-impf 3sg-travel-impf Sun
 'while the Sun goes travelling' (Gordon 1913:26)
- (138b) *ca tal-i-Ø v-luk-ul*
 then come-perf-3sg 3sg-leave-impf
 'then he came to depart' (Gordon 1913:49)

Both verbs in (138a) appear with their imperfective stem suffixes and third person clitic pronouns representing their subjects, whereas the main verb in (138b) appears with the perfective suffix and the complement with the imperfective suffix, and their subjects are represented by the third-person suffix in the first case and the third-person clitic particle in the second.

Intransitive main verbs were also followed by transitive complements in Colonial Yucatec:

- (139a) ca-ix ti lik-i-Ø v-xi(m)bal-t-e-Ø
 then-and completive arise-perf-3sg 3sg-travel-trans-subj-3sg
 'and then he arose that he might visit

v-pach kax-ob ah-couoh-ob
 3sg-tract forest-3pl ag-Couoh-3pl
 the tract of the forest of the Couoh people' (DZ651C-213D-E)

- (139b) ti kuch-Ø-on c-il-ab-Ø v-ppic-tun
 completive arrive-perf-1pl 1pl-see-subj-3sg 3sg-boundary-stone
 'we arrived that we might see the boundary stone

v-luum-ob y v-kax-ob Luis Can y Mateo Can
 3sg-land-3pl with 3sg-forest-3pl Luis Can with Mateo Can
 of the land and the forest of Luis Can and Mateo Can

Joseph Can v-ti-al v-yum-ob ti Bisente Can
 Joseph Can 3sg-prep-nom 3sg-father-3pl rel Vicente Can
 (and) Joseph Can on behalf of their father, who is Vicente Can' (YT718A-002A-F)

- (139c) lay tal-Ø-on ca-xot-e-Ø t-uy-almah=tñan
 det come-perf-1pl 1pl-demarcate-subj-3sg prep-3sg-say-word
 'this we came to demarcate at the order of

ca-yum juees cappⁿ Dⁿ Juan de Castil(lo) y Toledo-la-e
 1pl-father judge Captain Don Juan de Castillo y Toledo-prox-encl
 our father judge Captain Don Juan de Castillo y Toledo' (OX697-034A-E)

When the double-verb sequence contains a transitive main verb and an intransitive complement, and the agent of the main verb and the subject of the complement are co-referential, the clitic pronoun of the complement was deleted in Colonial Yucatec:

- (140a) ma bin v-kati-Ø _ tal-el
 not say 3sg-want-3sg _ come-impf
 'they say that he does not want to come' (Ciudad Real 1600?: fol. 240r)

- (140b) v-kati-Ø bin _ ben-el batab Cumkal bin-ma-bin
 3sg-want-3sg say _ go-impf leader Conkal go-not-go
 'they say that the leader wants to go to Conkal, but he may not go' (Ciudad Real 1600?: fol. 278r)

However, co-referential agents of transitive complements with transitive main verbs were never deleted in Colonial Yucatec:

- (141a) in-kati-Ø in-pul-Ø-Ø im-ba ti chen
 1sg-want-3sg 1sg-throw-subj-3sg 1sg-self prep well
 'I want to throw myself in the well' (Ciudad Real 1600?: fol. 240r)

- (141b) ma u-kati-Ø v-kam-Ø-Ø in-than
 not 3sg-want-3sg 3sg-receive-subj-3sg 1sg-word
 'he does not want to believe my words' (Ciudad Real 1600?: fol. 237v)

- (141c) va y-kat-Ø y-con-Ø-Øb hun-ac luum kax ti yum
 if 3sg-want-3sg 3sg-sell-subj-3pl one-nc land forest prep father
 'if they want to sell one piece of forest land to father,

alferes Dⁿ Aregandro Baesa tzuc chich u-kaba
 ensign Don Alejandro Baesa Tzuc Chich 3sg-name
 Ensign Don Alejandro Baesa, Tzuc Chich is its name' (MA733A-006A-007)

- (141d) ca-ix t-uy-al-ah-Øb y-ohel-Øb v-kax-ob
 'then-and completive-3sg-say-perf-3pl 3sg-know-3pl 3sg-forest-3pl
 'and then they said that they knew the forest of

ah-couoh-ob t-u-tan gou'
 ag-Couoh-3pl prep-3sg-presence governor
 the Couoh people in the presence of the governor' (DZ651C-213A-C)

And, of course, they also remained if they were not co-referential:

- (142a) k-il-ah-Ø y-kam-ic-Ø v-man kax ca-yum
 1pl-see-perf-3sg 3sg-receive-impf-3sg 3sg-purchased forest 1pl-father
 'we saw him receiving the purchased forest of our father

ti señor Antonio de Solaya-la-e
 rel Mr. Antonio de Solaya-prox-encl
 who is this Mr. Antonio de Solaya' (OX697-003A-C)

- (142b) ti c-il-ah-Ø y-ca-Ø-Ø hun-il Joseph Tun
 completive 1pl-see-perf-3sg 3sg-give-subj-3sg paper-nom Joseph Tun
 'we saw Joseph Tun, the scribe,

ess^{no} y Sebastian Mul
 scribe with Sebastian Mul
 and Sebastian Mul give him the document' (OX738B-202A-C)

- (142c) yum-e he lay au-ix-mehen-a
 father-voc here det 2sg-fem-child-prox
 'father, this daughter of yours here,

 a-ɔa-(a)h-Ø in-canan-t-e-Ø
 2sg-give-perf-3sg 1sg-watch-trans-subj-3sg
 whom you gave for me to care for' (Gordon 1913:37)

The fourth possibility—a transitive main verb followed by an intransitive complement with non-coreferential agent and subject—is not represented in my Colonial database.

In Modern Yucatec, unlike Colonial Yucatec, the co-referential subject of an intransitive complement is deleted after an intransitive main verb:

- (143a) táan u-b'in-Ø _ h-šíimb'al-Ø
 durative 3sg-go-impf _ ?-walk-impf
 'he's taking a walk [literally, he's going walking]' (Blair and Vermont-Salas 1965:4)
- (143b) ten-e? t-in-čam=b'in-Ø _ h-màan-Ø
 me-top durative-1sg-just=go-impf _ ?-buy-impf
 'me, I'm just going shopping' (Blair and Vermont-Salas 1965:13)
- (143c) sáamal-e? u-k'iin-il im-b'in-Ø h-meyah-Ø
 tomorrow-top 3sg-day-nom 1sg-go-impf ?-work-impf
 'tomorrow is the day I go to work' (V. Bricker et al. 1998:153)

The same is true of double-verb sequences with a transitive main verb and intransitive complement plus a co-referential agent and a subject:

- (144a) le máaš u-k'áat-Ø _ meyah-Ø k-u-meyah-Ø
 det who 3sg-want-3sg _ work-impf incompletive-3sg-work-impf
 'he who wants to work works' (V. Bricker et al. 1998:181)
- (144b) čén in-k'áat-Ø _ ħikbal-Ø t-aw-éet-el
 just 1sg-want-3sg _ chat-impf prep-2sg-with-nom
 'I just want to chat with you' (Blair and Vermont-Salas 1965:238)
- (144c) a-k'áat-Ø _ ?uk'-ul
 2sg-want-3sg _ drink-impf
 'would you like to drink?' (Blair and Vermont-Salas 1965:242)

However, the clitic pronouns for both arguments are present if they are not co-referential:

- (145a) t-u-čá?-ah-Ø im-b'in-Ø
 completive-3sg-allow-perf-3sg 1sg-go-impf
 'he allowed me to go' (V. Bricker et al. 1998:58)

- (145b) le k'ín k-u-tàal-Ø-e? má? a-ča?-ik-Ø
 det day incomplete-3sg-come-impf-top not 2sg-allow-impf-3sg
 'when he comes, don't let

uy-ok-ol
 3sg-enter-impf
 him in!' (V. Bricker et al. 1998:153)

- (145c) tolahkyak-e? t-inw-il-ah-Ø táan u-b'in-Ø
 tol-ah-hé-ak-top complete-1sg-see-perf-3sg durative 3sg-go-impf
 'on that occasion, I saw him going

t-u-kàah-al
 prep-3sg-town-nom
 to his town' (V. Bricker et al. 1998:272)

If the main verb is intransitive, and the complement is transitive, the clitic pronouns are present, whether or not they are co-referential:

- (146a) tàal-Ø-Ø u-č'ot-Ø-en š-?òop b'e=h(e)l-á?-a?
 come-perf-3sg 3sg-wring-subj-1sg fem-Ophelia thus=today-prox-prox
 'Ophelia came to shake me down today' (V. Bricker et al. 1998:87)

- (146b) u-ty-á?al kòol-il in-tàal-Ø in-š'imb'a(l)-t-Ø-eč
 3sg-prep-nom fell-nom 1sg-come-impf 1sg-walk-trans-subj-2sg
 'in felling season, I will come to visit you' (V. Bricker et al. 1998:132)

- (146c) há?ač-kab' in-máan-Ø in-t'an-Ø-eč
 be divided-land 1sg-pass-impf 1sg-speak-subj-2sg
 'in the morning, I will pass by to speak to you' (V. Bricker et al. 1998:92)

- (146d) b'in-Ø-en sac-?i? in-man-Ø-Ø ?um-p'éel č'òoy
 go-perf-1sg white-hawk 1sg-buy-subj-3sg one-nc bucket
 'I went to Valladolid to buy one bucket' (elicitation notes 1979)

- (146e) huk'nal u-b'in-Ø a-mol-ik-Ø
 even 3sg-go-impf 2sg-gather-impf-3sg
 'go gathering them up evenly [so nothing remains]!' (V. Bricker et al. 1998:115)

And if the main verb and its complement are both transitive, their agents are marked with clitic pronouns, whether or not they are co-referential:

- (147a) in-k'áat-Ø inw-il-Ø-eč
 1sg-want-3sg 1sg-see-subj-2sg
 'I want to see you' (V. Bricker 1981b:96)

- (147b) máʔ in-k'áat-Ø in-man-Ø-Ø le b'áʔal-óʔob'-oʔ
 not 1sg-want-3sg 1sg-buy-subj-3sg det thing-3pl-dist
 'I don't want to buy those things' (Blair and Vermont-Salas 1965:238)
- (147c) héʔ im-b'i(n)-s-(i)k-eč aw-il-Ø-Ø in-tàanah-oʔ
 assurative 1sg-go-caus-impf-2sg 2sg-see-subj-3sg 1sg-house-dist
 'I'll take you to see that house of mine' (Blair and Vermont-Salas 1965:203)

Although transitive complements are normally inflected with a subjunctive suffix, either -eh or -Ø, as in (146a–d) and (147a–c), there are occasional exceptions, such as the use of the imperfective suffix, -ik, in (146e) (see also [142a] above). Other examples of this usage of -ik instead of -eh or -Ø with transitive complements appear below:

- (148a) le héʔenkeč-eʔ mináʔan túun y-éet-el-oʔ
 det those-top not=exist then 3sg-with-nom-dist
 'as for those who did not affiliate with them,
- pwes k-u-tàal-Ø u-mol-ik-Ø
 well incompletive-3sg-come-impf 3sg-gather-impf-3sg
 well, they came gathering them' (V. Bricker 1979c:30, line 11)
- (148b) kóoʔ-man-kóoʔ u-b'in-Ø u-ǵ'á-ik-Ø ten
 piece-by-piece 3sg-go-impf 3sg-give-impf-3sg to-me
 'John is giving me
- le sùum h-wàan-oʔ
 det rope masc-John-dist
 that rope piece by piece' (V. Bricker et al. 1998:130)

The following pairs of elicited examples, which contrast the use of -eh/-Ø and -ik with transitive complements in identical contexts, suggest that -ik has a gerundial meaning, indicating that the actions specified by the main verb and its complement occur simultaneously, whereas -eh/-Ø has a purposive meaning, implying that the action specified by the complement follows that of the main verb (V. Bricker 1981b:97–98):

- (149a) k-u-tàal-Ø u-mol-ik-Ø
 incompletive-3sg-come-impf 3sg-gather-impf-3sg
 'he comes gathering it'
- (149b) k-u-tàal-Ø u-mol-eh-Ø
 incompletive-3sg-come-impf 3sg-gather-subj-3sg
 'he comes to gather it'
- (150a) t-u-tàal-Ø u-kaš-t-ik-Ø
 durative-3sg-come-impf 3sg-look for-trans-impf-3sg
 'he is coming looking for him'

- (150b) t-u-tàal-Ø u-kaš-t-eh-Ø
durative-3sg-come-impf 3sg-look for-trans-subj-3sg
'he is coming to look for him'
- (151a) t-u-tàal-Ø u-ḡikb'al-t-ik-Ø h-wàan
durative-3sg-come-impf 3sg-chat-trans-impf-3sg masc-John
'he is coming chatting with John'
- (151b) t-u-tàal-Ø u-ḡikb'al-t-Ø-Ø h-wàan
durative-3sg-come-impf 3sg-chat-trans-subj-3sg masc-John
'he is coming to chat with John'

The gerundial meaning of -ik is translated as '-ing' in English in the first of each pair (gathering, looking for, chatting); the purposive meaning is conveyed by infinitives (to gather, to look for, to chat) in the English translation of the second example in each pair.

5.3. COORDINATE AND SUBORDINATE CLAUSES. The particle, *ca* (phonetic [káʔah]), had two syntactic functions in Colonial Yucatec: (1) it served as a coordinating conjunction for linking clauses based on perfective verb stems, and (2) it introduced subordinate clauses. In its coordinate function, *ca* could be glossed as 'and' or 'then' and occasionally 'when,' whereas in its subordinate function, it could be glossed as 'that.'

The Calepino de Motul contains the following examples of coordinate clauses introduced by *ca*:

- (152a) bin-i-Ø ti y-otoch ca u-cim-ḡ-ah-Ø
go-perf-3sg prep 3sg-home and 3sg-die-caus-perf-3sg
'he went to his home, and he killed
- v-čhup-(u)l-il
3sg-woman-nom-abstr
his wife' (Ciudad Real 1600?: fol. 58v)
- (152b) in-bo(l)-t-ah-Ø in-ppax ca hul-i-Ø Pedro
1sg-payment-trans-perf-3sg 1sg-debt and arrive-perf-3sg Pedro
'I paid my debt when Peter arrived' (Ciudad Real 1600?: fol. 58v)
- (152c) v-hoy-ah-Ø v-xex ca cim-i-Ø
3sg-lose weight-perf-3sg 3sg-fat and die-perf-3sg
'he lost his fat, and he died' (Ciudad Real 1600?: fol. 190r)
- (152d) hok-i-Ø ti vinic-il in-mehen
leave-perf-3sg prep person-abstr 1sg-son
'my son left his previous situation
- ca oc-i-Ø ti batab-il
and enter-perf-3sg prep leader-abstr
when he entered leadership' (Ciudad Real 1600?: fol. 190v)

(152e) hun=çut tii cul-ic-Ø y-icnal v-yum ca man-i-Ø
 one=nc completive reside-perf-3sg 3sg-with 3sg-father and pass-perf-3sg
 'he resided briefly with his father, then he passed on' (Ciudad Real 1600?: fol. 89r)

(152f) (in)v-il-ah-Ø balam ti be
 1sg-see-perf-3sg jaguar prep road
 'I saw a jaguar on the road,

ca çaat-i-Ø (in)v-ik t-u-men u-kinam
and be lost-perf-3sg 1sg-breath prep-3sg-deed 3sg-ferocity
 and I fainted because of its ferocity' (Ciudad Real 1600?: fol. 247v)

The use of *ca* as a subordinating particle was more difficult to define. It occurred in sentences where one or more verbs was inflected with a subjunctive suffix, although not necessarily the one that followed *ca*. Nor was *ca* limited to contexts with non-coreferential agents and/or subjects:

(153a) bin in-bo(l)-t-e-Ø in-ppax ca bin t(al)-ac-ech
 future 1sg-payment-trans-subj-3sg 1sg-debt that future come-subj-2sg
 'I will pay my debts when you come' (Ciudad Real 1600?: fol. 58v)

(153b) lic v-ɔoc-ol a-han-al ca t(al)-ac-ech vay-e
 incomplete 3sg-end-impf 2sg-eat-impf that come-subj-2sg here-encl
 'when you finish eating, you should come here' (Ciudad Real 1600?: fol. 59r)

(153c) lay in-kati-Ø ca a-çhab-Ø-Ø a-cux-ol-al-la
 det 1sg-want-3sg that 2sg-take-subj-3sg 2sg-live-heart-nom-prox
 'this is what I want, that you exhibit discretion' (Ciudad Real 1600?: fol. 59r)

(153d) yum-il-e ma in-nah-Ø ca oc-oc-ech t-(in)u-otoch
 father-abstr-voc not 1sg-merit-3sg that enter-subj-2sg prep-1sg-home
 'sir, I am not worthy that you enter my home' (Ciudad Real 1600?: fol. 319r)

(153e) lay in-men in-tzeec-t-e-Ø vinic-ob cuchi
 det 1sg-deed 1sg-sermon-trans-subj-3sg person-3pl then
 'this was because I was preaching to men then

ca çhap-ah-Ø-en
that ill-inch-perf-1sg
 that I became ill' (Ciudad Real 1600?: fol. 305r)

The particle, *káʔah*, has the same functions in Modern Yucatec, serving as a coordinating conjunction with clauses containing perfective verbs and as a subordinating conjunction with verbs inflected for the subjunctive mood. The coordinating function of *káʔah* is illustrated in the following complex sentence:

(154) bwenoh pwes tíʔ kóoh-Ø-óʔob' túun-eʔ
 good well there arrive-perf-3pl then-encl
 'good, well they arrived then,

káʔah tíʔ kóoh-Ø-óʔobʔ (l)e hèente-óʔobʔ bʔey-oʔ
and there arrive-perf-3pl det people-3pl thus-dist
 and the people arrived like that:

le hèenté-oʔ t-u-húuntar-Ø-óʔobʔ t-u-láak-al-óʔobʔ
 det people-dist durative-3sg-gather-impf-3pl prep-3sg-all-nom-3pl
 all those people were gathering

tíʔ iglesyá-oʔ
 prep church-dist
 in that churchʔ (after V. Bricker 1979c:32, lines 32–33)

Only the second clause in (154) is introduced by káʔah. The third clause begins with a topicalized phrase, le hèentéʔ ‘as for those people,’ apparently obviating the need for a coordinating conjunction. The first clause in (155) contains such a conjunction, but the ones that follow it do not, implying that it is not obligatory in Modern Yucatec:

- (155) kʔíʔiś-óʔobʔ káʔah u-čʔ(áʔ)ak-Ø-Ø-eʔ
 thorn-3pl when 3sg-be cut-subj-3sg-top
 ‘when the thorns were cut,

k-u-lúubʔ-ul t-a-kʔabʔ
 incompletive-3sg-fall-impf prep-2sg-arm
 they fell on your arms,

k-u-lúubʔ-ul t-aw-òok
 incompletive-3sg-fall-impf prep-2sg-leg
 they fell on your legs,

k-u-lúubʔ-ul héʔe=túʔuś táak teč-eʔ
 incompletive-3sg-fall-impf where=ever from to-you-encl
 they fell all over youʔ (after V. Bricker 1979c:33–34, line 48)

The best examples of the use of káʔah as a subordinating conjunction can be found in double-verb sequences whose agents and subjects are not coreferential:

- (156a) in-kʔaat-Ø káʔah a-šʔimbʔa(l)-t-Ø-en
 1sg-want-3sg that 2sg-walk-trans-subj-1sg
 ‘I want you to visit me [literally, I want that you might visit me]’ (V. Bricker 1981b:97)

- (156b) in-kʔaat-Ø káʔah wen-ek-eč
 1sg-want-3sg that sleep-subj-2sg
 ‘I want you to sleep [literally, I want that you might sleep]’ (V. Bricker 1981b:96)

- (156c) bʔáʔaś a-kʔaat-Ø káʔah in-man-eh-Ø
 what you-want-3sg that 1sg-buy-subj-3sg
 ‘what do you want me to buy [literally, what do you want that I might buy]?’ (Blair and Vermont-Salas 1965:249)

- (156d) u-k'áat-Ø ká(ʔah) in-man-Ø-Ø le b'áʔal-aʔ
 3sg-want-3sg that 1sg-buy-subj-3sg det thing-prox
 'he wants me to buy this thing [literally, he wants that I buy this thing]' (Blair and Vermont-Salas 1965:264)
- (156e) máʔ u-k'áat-Ø ká(ʔah) k-ʔúʔuy-Ø-Ø le b'áʔal-oʔ
 not 3sg-want-3sg that 1pl-hear-subj-3sg det thing-dist
 'he doesn't want us to hear that thing [literally, he doesn't want that we hear that thing]' (Blair and Vermont-Salas 1965:265)

6. IMPERATIVES

Positive and negative commands based on intransitive and transitive verbs represent still another class of word orders.

6.1. POSITIVE COMMANDS. The suffix, -en, marks imperative intransitive stems in both Colonial and Modern Yucatec, and, if the command is directed at more than one person, the second-person plural suffix, -ex (phonetic [-éʔeš]) is attached to the imperative stem. Thus, in Colonial Yucatec, the imperative stems derived from hok 'to come out, emerge' were hok-en 'go out!' and hok-en-ex 'go out (you-all)!,' as in the following contextual examples from the *Calepino de Motul*:

- (157a) lazaro-e hok-en tac y-ok-cab-il
 Lazaro-voc go out-imper until 3sg-upon-land-nom
 'Lazaro, go outside!' (Ciudad Real 1600?: fol. 220r)
- (157b) hok-en-ex tan-cab
 go out-imper-2pl presence-land
 'go outside [you-all]!' (Ciudad Real 1600?: fol. 190v)

The imperative stems of two intransitive roots, bin 'to go' and tal 'to come,' were suppletive:

- (157c) xen ti y-utz-il
 go prep 3sg-good-abstr
 'go in peace!' (Ciudad Real 1600?: fol. 422r)
- (157d) xen-ex ti y-otoch ku
 go-2pl prep 3sg-home-God
 'go to the church [you-all]!' (Ciudad Real 1600?: fol. 420v)
- (157e) coten vay-e
 come here-encl
 'come here!' (Ciudad Real 1600?: fol. 439r)

The examples in (157a–e) lack the nominal subject and aspectual head words or particles that characterize the Basic Word Order for intransitive clauses described in **1.2.** above. The word order for intransitive imperative clauses is Verb-Adverb, not Verb-Subject-Adverb.

Transitive imperative clauses also lack aspectual head words and particles, as well as nominal agents and clitic pronouns for the agents of transitive verbs. However, transitive imperative stems do not have a distinctive imperative suffix like -en, but invoke a variant of their subjunctive suffix, -e/-Ø, for that purpose:

- (158a) hal-Ø-Ø hi=bal a-kati-Ø
say-subj-3sg what=ever 2sg-want-3sg
'say whatever you want!' (Ciudad Real 1600?: fol. 185r)
- (158b) hal-Ø-Ø a-ba ti batab
say-subj-3sg 2sg-self prep leader
'identify yourself to the leader!' (Ciudad Real 1600?: fol. 204r)
- (158c) kiz-Ø-Ø au-im t-au-al
fill-subj-3sg 2sg-breast prep-3sg-child
'fill your breasts for your child!' (Ciudad Real 1600?: fol. 245v)
- (158d) an-t-Ø-on con a-mektan=pixan-il-e
help-trans-subj-1pl we-who-are 2sg-subject=soul-abstr-encl
'help us, we who are your parishioners!' (Ciudad Real 1600?: fol. 304v)
- (158e) bo(l)-t-e-Ø v-kab a-mahan vinic-il
payment-trans-subj-3sg 3sg-hand 2sg-hired person-abstr
'pay for the work of your day laborer!' (Ciudad Real 1600?: fol. 231r)
- (158f) luk-ez-Ø-en-ex y-alan in-cuch
leave-caus-subj-1sg-2pl 3sg-below 1sg-burden
'liberate me from my office!' (Ciudad Real 1600?: fol. 85v)

Both the main verb and its complement could be treated as imperatives in double-verb sequences:

- (159a) xen ča-Ø-Ø v-çoz-ci-il
go fetch-subj-3sg 3sg-bagasse-henequen-nom
'go fetch the henequen fiber!' (Ciudad Real 1600?: fol. 106r)
- (159b) xen kal-Ø-Ø Juan ti mazcab
go enclose-subj-3sg Juan prep jail
'go throw John in jail!' (Ciudad Real 1600?: fol. 285r)

An imperative clause could be followed by a second clause with or without a conjunction:

- (160a) ɔic-Ø-Ø-ex a-zic ca achac y-oc-ol haa-i
insert-subj-3sg-2pl 2sg-thatch that without 3sg-enter-impf water-partit
'insert your thatch so that water cannot enter!' (Ciudad Real 1600?: fol. 130r)
- (160b) et-ez-Ø-Ø bee toon _ xic cumkal
show-caus-subj-3sg road to-us _ go Conkal
'show us the road that goes to Conkal!' (Ciudad Real 1600?: fol. 166v)

(160c) taacun-t-e-Ø takin _ t-in-ɔa-ah-Ø tech-e
 locker-trans-subj-3sg money _ completive-1sg-give-perf-3sg to-you-encl
 'guard the money that I gave to you!' (Ciudad Real 1600?: fol. 401r)

(160d) ɔa-Ø-Ø ox-pec vah _ in-pay-ab-Ø
 give-subj-3sg three-nc bread _ 1sg-repay-in-kind-subj-3sg
 'give three breads as my repayment!' (Ciudad Real 1600?: fol. 360r)

And one imperative clause could follow another without being linked by a conjunction:

(161) taz-Ø-Ø -ex a-nok _ taz-Ø-Ø-ex ɕuuc
 spread-subj-3sg-2pl 2sg-cloth _ spread-subj-3sg-2pl hay
 'spread out your bedding! _ spread hay

 t-u-vich luum ven-ebal padre
 prep-3sg-surface ground sleep-instr priest
 on the ground for the priest's bed!' (Ciudad Real 1600?: fol. 401v)

The treatment of positive commands did not change during the transition from Colonial to Modern Yucatec. The intransitive imperative suffix is still -en in Modern Yucatec:

(162a) máan-en té?e háal (l)e kòot-o?
 pass-imper there edge det wall-dist
 'pass there beside that wall!' (V. Bricker et al. 1998:134)

(162b) kó?oten t-inw-iknal ho?
 come-imper prep-1sg-presence Merida
 'come to my place in Merida!' (V. Bricker et al. 1998:11)

(162c) šèen t-aw-otoč hun=tàaɕ'
 go-imper prep-2sg-home one=nc
 'go directly home!' (V. Bricker et al. 1998:116)

Transitive imperatives are marked by the subjunctive suffixes, -eh or -Ø, in Modern Yucatec:

(163a) ʔiçíin-t-eh-Ø
 bathe-trans-subj-3sg
 'bathe yourself!' (V. Bricker et al. 1998:11)

(163b) b'an-Ø-Ø u-le? če?-o?
 shake-subj-3sg 3sg-leaf tree-dist
 'shake the leaves of that tree!' (V. Bricker et al. 1998:26)

(163c) ɕ'áah-Ø-Ø ten hun-ɕ'íit nal
 give-subj-3sg to-me one-nc ear-of-corn
 'give me one ear of corn!' (V. Bricker et al. 1998:52)

(163d) čóol-Ø-Ø a-t'àan
 disentangle-subj-3sg 2sg-word
 'develop your vocabulary!' (V. Bricker et al. 1998:72)

(163e) b'i(n)-s-Ø-Ø té?e kàab'-al-o?
 go-caus-imper-3sg there ground-aj-dist
 'take it down there!' (V. Bricker et al. 1998:118)

In Modern Yucatec, as in Colonial Yucatec, both the main verb and the complement can be treated as imperatives in double-verb sequences:

(164a) kó?ot-en a-b'ó?oy-b'es-Ø-Ø a-b'ah
 come-imper 2sg-shade-caus-subj-3sg 2sg-self
 'come shade yourself!' (V. Bricker et al. 1998:36)

(164b) kó?ot-en a-b'ut'-Ø-Ø aw-ìit pàal
 come-imper 2sg-stuff-subj-3sg 2sg-anus child
 'come and eat, child! [literally, come and stuff your anus]' (V. Bricker et al. 1998:39)

(164c) haw-Ø-Ø a-b'ah aw-il-eh-Ø
 turn face up-subj-3sg 2sg-self 2sg-see-subj-3sg
 'look up at it!' (V. Bricker et al. 1998:99)

And an imperative clause can be followed by a second clause with or without a conjunction in Modern Yucatec:

(165a) ?áah-kab'-t-Ø-Ø le č'óoy-o?
 settle-land-trans-subj-3sg det bucket-dist
 'drop that bucket

_ péen-en t-aw-otoč
 _ move-imper prep-2sg-home
 and rush home!' (V. Bricker et al. 1998:2)

(165b) ?il-Ø-Ø _ aw-il-eh-Ø
 see-subj-3sg _ 2sg-see-subj-3sg
 'look! [literally, look, that you might see it]' (V. Bricker et al. 1998:12)

(165c) ?ú?uy-Ø-Ø _ aw-ú?uy-eh-Ø
 hear-subj-3sg _ 2sg-hear-subj-3sg
 'listen! pay attention! [literally, listen that you might hear it]' (V. Bricker et al. 1998:21)

(165d) kaláan-t-Ø-Ø a-b'ah
 guard-trans-subj-3sg 2sg-self
 'be careful

le káan kóoh-(o)k-eč te? níš=kab'-o?
 det when arrive-subj-2sg there tilt=land-dist
 when you arrive there at the ravine!

b'ik ší?-ik-eč lúub'-ul
 beware go-subj-2sg fall-imperf
 don't fall!' (V. Bricker et al. 1998:198)

In (165d), le káan 'when ...' is a particle phrase that serves as a subordinating conjunction in the Hocaba dialect of Yucatecan Maya (V. Bricker et al. 1998:123).

Alternatively, the examples in (165b–c) can be interpreted as representations of verbal reduplication with a pronominal infix: ?il-aw-il-eh and ?ú?uy-aw-ú?uy-eh.

6.2. NEGATIVE COMMANDS. Both intransitive and transitive negative imperatives are introduced by the negative particle, ma (phonetic [má?]), in Colonial and Modern Yucatec. The verbs that follow it are based on their imperfective stems, and they are inflected with clitic subject or agent pronouns.

The following examples illustrate these characteristics for intransitive negative commands in Colonial Yucatec:

(166a) ma a-ben-el
 not 2sg-go-impf
 'don't go!' (Ciudad Real 1600?: fol. 277r)

(166b) ma a-mal-el ti hacaḁ be
 not 2sg-pass-impf prep slippery road
 'don't pass on a slippery road!' (Ciudad Real 1600?: fol. 170v)

Representative examples of transitive negative commands in Colonial Yucatec appear below:

(167a) ma au-al-ic-en
 not 2sg-say-impf-1sg
 'don't summon me!' (Ciudad Real 1600?: fol. 204r)

(167b) ma a-c̣ha-ic-Ø ti-al-bil
 not 2sg-take-impf-3sg prep-nom-partic
 'don't take another's property!' (Ciudad Real 1600?: fol. 277r)

Conjunctions were not obligatory in clauses following negative commands in Colonial Yucatec:

(168a) ma a-ben-el mehen-e ti ma tan au-al-ab-Ø ten
 not 2sg-go-impf son-voc rel not durative 2sg-say-subj-3sg to-me
 'don't go son, without telling me!' (Ciudad Real 1600?: fol. 423r)

(168b) ma au-al-ic-Ø _ ti xic-en to-i
 not 2sg-say-impf-3sg _ rel might go-1sg there-partit
 'don't tell me until after I go!' (Ciudad Real 1600?: fol. 221v)

- (168c) ma au-al-ic-Ø ti padre _ in-čha-ic-Ø y-uun
 not 2sg-say-impf prep priest _ 1sg-take-impf-3sg 3sg-book
 'don't tell the priest that I took his book!' (Ciudad Real 1600?: fol. 204r)

The treatment of negative commands did not change during the transition from Colonial to Modern Yucatec. The negative particle, *má?*, still governs the imperfective suffix with intransitive negative commands, and the clitic pronouns serve as the subjects of intransitive stems:

- (169a) *má? a-téek=b'in-Ø*
 not 2sg-immediately=go-impf
 'don't go right away!' (V. Bricker et al. 1998:273)
- (169b) *má? a-téek=han-a*
 not 2sg-immediately=eat-impf
 'don't eat right away!' (V. Bricker et al. 1998:273)
- (169c) *ší?i=pa* *má? a-ku(l)-ta* *y-óo?* *tùun-ič*
 boy=child not 2sg-sit-impf 3sg-upon stone-?
 'child, don't sit on the stone!' (V. Bricker et al. 1998:16)

The same is true of transitive negative commands in Modern Yucatec, except that the clitic pronouns represent the agents, not the subjects, of transitive stems:

- (170a) *má? a-hup-ik-Ø a-mó?ol*
 not 2sg-insert-impf-3sg 2sg-paw
 'don't interfere! [literally, don't insert your paw]' (V. Bricker et al. 1998:186)
- (170b) *má? a-tú?ub'-s-ik-en*
 not 2sg-forget-caus-impf-1sg
 'don't forget me!' (V. Bricker et al. 1998:282)
- (170c) *má? a-sen=čo?-ik-Ø*
 not 2sg-very=scrub-impf-3sg
 'don't overclean it!' (V. Bricker et al. 1998:71)
- (170d) *má? a-č'aw-ik- Ø aw-òok*
 not 2sg-dangle-impf-3sg 2sg-foot
 'don't dangle your feet!' (V. Bricker et al. 1998:80)
- (170e) *má? a-mèen-t-ik-Ø a-kis(i)n-il tí?-Ø*
 not 2sg-deed-trans-impf-3sg 2sg-devil-nom prep-3sg
 'don't harm him!' (V. Bricker et al. 1998:129)

In negative commands composed of double-verb sequences, both the main verbs and their complements employ imperfective suffixes:

(171a) *má? a-ča?-ik-Ø u-hùuk'-Ø*
 not 2sg-take-impf-3sg 3sg-move on buttocks-impf
 'don't let it move!' (V. Bricker et al. 1998:115)

(171b) *le k'íin k-u-tàal-Ø-e?*
 det day incompletive-3sg-come-impf-top
 'when he comes,

má? a-ča?-ik-Ø uy-ok-ol
 not 2sg-allow-impf-3sg 3sg-enter-impf
 don't let him in!' (V. Bricker et al. 1998:153)

The example in (172) contains two clauses; the first provides a context for the negative command that immediately follows it:

(172) *wáah táan u-t'ó?óš-ol hàan-(a)l-e? má? aw-áalkab'-Ø*
 if durative 3sg-be distributed-impf food-nom-encl not 2sg-run-impf
 'if food is being distributed, don't run!' (V. Bricker et al. 1998:293)

A negative imperative particle with an exclamatory function in Modern Yucatec is *b'ik* 'beware! be careful!'. It governs the subjunctive stem of the verb that immediately follows it and uses the pronominal suffix, instead of the clitic pronoun, with intransitive stems:

(173a) *b'ik ší?-ik-eč a-pak'-Ø-Ø ten*
 beware go-subj-2sg 2sg-smear-subj-3sg to-me
 'be careful not to get it on me!' (V. Bricker et al. 1998:206)

(173b) *b'ik a-hut-Ø-Ø a-só?ok'*
 beware 2sg-demolish-subj-3sg 2sg-underarm hair
 'be careful about letting your hair fall

t-uy-óok'-ol le wàah-o?
 prep-3sg-upon-nom det tortilla-dist
 upon that tortilla!' (V. Bricker et al. 1998:248)

It contrasts, in these respects, with the imperfective suffixes governed by *má?* (see also [165d] above).

7. THE DECLARATIVE MODE⁴

The word order of the "present tense" of the Colonial grammarians differed from both the Basic and Focused Word Orders discussed in 1. and 2. above. It belonged to what Smailus (1989:72–73) has called the "declarative mode" of the language, whereas the other two word orders belonged to his "referential mode." As its name implies, the "declarative mode" was employed in contexts where the speaker or writer was making a declaration of some kind, using for that purpose, a distinctive word order and a novel treatment of verbs.

The declarative mode is characterized by a double-verb sequence, in which the main lexical verb appears first but is not inflected with dependent pronouns. Clitic pronouns co-occur with the second verb in the sequence, as in the following examples with intransitive main verbs and the auxiliary verb, *cah* 'to do, treat':

- (174a) *kuch-ul ca-cah t-u-hol cah cumkal*
 arrive-impf 1pl-do prep-3sg-hole town Conkal
 'we already arrive at the entrance to the town of Conkal' (Ciudad Real 1600?: fol. 208r)
- (174b) *cim-il v-cah in-yum manaan*
 die-impf 3sg-do 1sg-father non=existent
 'my father is so ill that he is not sentient' (Ciudad Real 1600?: fol. 295r)
- (174c) *em-el v-cah-ob mitnal*
 descend-impf 3sg-do-3pl Hell
 'they descend into Hell' (Ciudad Real 1600?: fol. 306r)
- (174d) *nak-al v-cah y-et=hun*
 approach-impf 3sg-do 3sg-with=one
 'his companion approaches' (Ciudad Real 1600?: fol. 322r)

The stems of the intransitive verbs in the examples are identical to their imperfective counterparts in the referential mode (*kuch-ul*, *cim-il*, *em-el*, and *nak-al*), but they are not preceded by clitic pronouns serving as their subjects. Instead, the subject of each double-verb sequence is associated with the verb that follows it in a periphrastic construction. This is quite different from double-verb sequences in the referential mode, where the first verb in the sequence is always inflected for subject or agent (cf. 5. above).

In order to understand the temporal reference of intransitive verbs in the declarative mode, it is necessary to consider them in the larger context of an oral or written text. The following example drawn from the *Crónica de Mani* of 1557 suggests that *cimil v cah* in (174b) could also have referred to illness in the past:

- (175) *he-x don Juan Cocom gouernador çututa-e*
 as for-and don Juan Cocom governor of Sotuta-top
 'and as for Don Juan Cocom, governor of Sotuta,
- cim-il v-cah chap(a)h-aan-Ø ma hul-Ø-Ø-ij*
 sick-impf 3sg-do ill-partic-3sg not arrive-perf-3sg-partit
 'he was sick; having fallen ill, he did not arrive' (MA557-039A-042)

The use of the perfective stem of *hul* 'to arrive' situates the illness of Don Juan Cocom before the present. So also, does the fact that the perfective stems of transitive and intransitive verbs are used for describing many of the events mentioned in the document.

A striking difference between the declarative and the referential modes is that the declarative mode was not used with active transitive stems. Only the antipassive stems of transitive roots could occur in declarative statements, and the direct objects of such roots were demoted to indirect objects after the preposition *ti*. In the following examples, a referential statement in (176a) is followed by a semantically related declarative statement in (176b):

(176a) ma a-pee-z-t-ic-Ø a-çukin
 not 2sg-show off-trans-impf-3sg 2sg-fast
 'don't show off your fasting!' (Ciudad Real 1600?: fol. 371v)

(176b) pee-z v-cah t-u-çukin
show off 3sg-do prep-3sg-fast
 'he makes a show of fasting' (Ciudad Real 1600?: fol. 371v)

The verb in (176a)—*peeztic*—is active and transitive, and as such it takes both an agent (represented by the clitic pronoun, *a* 'you') and a direct object (*a-çukin* 'your fasting'), whereas the verb in (176b)—*pee-z*—is not inflected for agent or patient, and the nominal patient—*u-çukin* 'his fasting'—appears in a prepositional phrase after *t-*.

Another set of examples drawn from two late sixteenth-century documents pairs of causative and antipassive stems derived from the root intransitive, *hok* 'to come out, emerge,' the first in the referential mode and the second in the declarative mode:

(177a) t-u-lahun-ca-kal u-kin-il uy-u-il mayo
 prep-3sg-ten-two-twenty 3sg-day-nom 3sg-month-nom May
 'on the thirtieth day of the month of May

ych-il y-ab-il de mil quinientos noventa y seis años
 within-nom 3sg-year-nom of 1596 years
 in the year 1596,

t-u-hok-s-ah-Ø u-ba-ob Gaspar Keb
completive-3sg-emerge-caus-perf-3sg 3sg-self-3pl Gaspar Keb
 they presented themselves, Gaspar Keb

y-et-el Geronimo Keb Francisco Keb Jose Keb
 3sg-with-nom Geronimo Keb Francisco Keb Jose Keb
 with Geronimo Keb, Francisco Keb, and Jose Keb' (SB596A-001B-002C)

(177b) Diego Pox ah-otoch-nal t-u-cah-al Santiago ñan
 Diego Pox ag-home-abstr prep-3sg-town-nom Santiago Dzan
 'Diego Pox, householder in the town of Santiago Dzan,

hok-ah in-cah t-in-ba t-u-tan in-noh tzic-an-il
emerge-ap 1sg-do prep-1sg-self prep-3sg-front 1sg-great esteem-partic-nom
 I present myself before my great esteemed

yum ti hal-ach vinic governador vay ti noh cah ti ho-e
 father prep truth-aj person governor here prep great town prep Merida-encl
 father who is the leader governor here in the city of Merida' (DZ587A-001A-F)

The parallel phrases are *t u hoksah u baob* 'they presented themselves' (referential) and *hokah in cah t in ba* 'I present myself' (declarative). They differ in the following respects: (1) *hokah* lacks the causative suffix

and the aspectual and pronominal inflection of t_u hoksah, and (2) the reflexive pronouns that follow the verbs serve as the direct object in the first case (u baob) and the indirect object (t in ba) in the second. In other words, although the meaning of the verb is transitive in the declarative example, its morphology and syntax are not.⁵

In references to the past, cah was replaced by cibah in the declarative mode:

- (178a) he-x v-yum Fran^{co} Tax la-e
as for-and 3sg-father Francisco Tax-prox-encl
'and as for the father of this Francisco Tax,

ma-ix=nan v-kaax vay-e
not-and=exist 3sg-forest here-encl
it is not his forest here;

chan=bel cab-al v-cib-ah kax
only be given-impf 3sg-?-perf forest
the forest was only given by concession

v-pach-in-t-e-Ø v-kuu-an v-yum
3sg-release-usative-trans-subj-3sg 3sg-grant-partic 3sg-father
for him to release what was granted to his father

ca cul-h-i-Ø vay-e
when settle-pos-perf-3sg here-encl
when he settled here' (DZ569-064-067)

- (178b) hek lay in-yum Juan Pox noh xib cim-i-Ø
here det 1sg-father Juan Pox great man die-perf-3sg
'this here is [of] my father, Juan Pox, the elder, who died

ti ma y-utz-cin-ah-Ø testamento
that not 3sg-good-caus-perf-3sg testament
without executing that last will

v-tok-yah than-lo-e
3sg-testament-nom word-dist-encl
and testament of his

t-u-men-el-ix che=tun cim-il v-cib-ah xan
prep-3sg-deed-nom-and sudden die-impf 3sg-?-perf also
and because he died suddenly also' (DZ587A-011A-013A)

Subjunctive expressions were marked by cib in the declarative mode, which also co-occurred with bin for the remote future:

- (179a) tzak-yah bin a-cib-ex ti mazcab
 ring-nom future 2sg-?-2pl prep bell
 'you will ring the bells!' (Ciudad Real 1600?: fol. 115v)
- (179b) tal-el bin v-cib v-lil-ib nic-te
 come-impf future 3sg-? 3sg-shake-subj flower-tree
 'it will come to shake the frangipani' (Gordon 1913:65)
- (179c) ti ca=yacil-ix bin u-cib ten
 prep charity-and future 3sg-? to-me
 'and in charity he will permit me' (DZ587A-086)

The Calepino de Motul uses the verb, *halmah* 'to address,' to illustrate the differences between the three "tenses" in the declarative mode (Ciudad Real 1600?: fol. 204r):

- (180a) hal-mah in-cah teex
 say-? 1sg-do to-you-all
 'I address you-all'
- (180b) hal-mah in-cib-ah teex
 say-? 1sg-?-perf to-you-all
 'I addressed you-all'
- (180c) hal-mah bin v-cib teex
 say-? future 3sg-? to-you-all
 'he will address you-all'

Of the three kinds of temporal constructions in the declarative mode, which paralleled the aspectual stems in the referential mode in Colonial Yucatec, vestiges of only one of them are still detectable in Modern Yucatec. It is the one based on *cah* that the Colonial grammarians classified as a "present tense." As explained in 4.2. in Chapter 5, it is now limited to contexts in which, immediately after declaring an intention, the speaker gets up and carries it out, justifying its classification as an immediate future.

8. SUMMARY OF CHANGES IN SYNTAX AND DISCOURSE THROUGH TIME

The loss of the historical past in the transition from Colonial to Modern Yucatec was accompanied by the loss of split ergativity based on a pronominal hierarchy, leaving only the ergative split controlled by aspect in Modern Yucatec. The periphrastic "tenses" favored by the Colonial grammarians have not withstood the test of time, leaving behind only one example of the present "tense" that I have labelled as the immediate future. Although definite future constructions do not appear in my Colonial database, they may represent an accidental gap, rather than an innovation in Modern Yucatec.

NOTES

1. Information questions are dealt with at greater length in **2.5.** below.
2. Paradigm H in V. Bricker (1981b:124) illustrates the use of the definite future in agent- and patient-focus constructions in Modern Yucatec.
3. 'We begin our work' is an alternative translation of *c u hoppol c meyah*.
4. Not to be confused with the use of the term, "declarative sentence," in English grammar.
5. The demotion of the direct object to an indirect object in such constructions is the antithesis of the advancement of an indirect object to a direct object as a result of noun incorporation, except that the transitive verb in the latter case is not part of a double-verb sequence (cf. **1.3.** above).

Appendix A

DOCUMENTARY SOURCES OF MAYA CLAUSES, PHRASES, AND ALLUSIONS

INTRODUCTION

The documents from which the examples of clauses and phrases were drawn are listed below the names of the collections and institutions where the original sources were archived at the time of my study. Copies of my concordances and the transcriptions of documents on which they are based will be archived in two places: (1) the Latin American Library at Tulane University in New Orleans, Louisiana, and (2) the Library of the American Philosophical Society in Philadelphia, Pennsylvania.

Also included in this Appendix is a list of the audio recordings of texts in Modern Yucatec under the name of the website from which they may be downloaded. The original tapes and copies of their meta-documentation are archived in the Library of the American Philosophical Society.

- Archivo de la Mitra Emeritense (Mérida) Santa Visita Pastoral, 1784, exp. 46, Chunhuhub.

The priests who officiated in Maya towns in the Province of Yucatan underwent periodic visitas pastorales or tours of inspection by their superiors, during which the Maya officials in the town governments had an opportunity to complain about how they were treated by their priests. Such a visita pastoral took place in the town of Chunhuhub in the southeastern part of the Province of Yucatan in 1783 and 1784. The dossier from those years contains six Maya documents that describe the mistreatment of the officials of Chunhuhub and the smaller towns of Tituc and Polyuc by their priest, as well as pages from the cofradía records of Chunhuhub dating to 1783. The examples drawn from those documents can be identified by the prefix, "HB."

Code	Year	Day	Month	Folio(s)
HB783A	1783	25	Sep	42
HB783B	1783	—	—	51–53
HB784A	1784	21	Mar	45
HB784B	1784	—	—	47
HB784C	1784	23	Mar	40
HB784D	1784	—	—	49
HB784E	1784	—	—	50

- Correspondencia de la Guerra de Castas. Biblioteca Yucatanense (formerly Centro de Apoyo a la Investigación Histórica de Yucatán and originally Biblioteca Crescencio Carrillo y Ancona of the Instituto Yucateco de Antropología e Historia in the Palacio Cantón).

The Caste War of Yucatan began in 1847 and lasted until 1901, but the documentary record focuses on the years, 1847–1853, when the rebel Maya were most active, and the development of the Cult of the Talking Cross in 1850 and 1851. The variety of towns in which the letters originated reflects the movement of troops during those years.

Code	Year	Day	Month	Town
AYN851A	1851	22	Sep	Noh Ayin
CHA850A	1850	23	Sep	Chichanha
CHA851A	1851	8	Aug	Chichanha
COP850A	1850	8	Mar	X Copoil
CRZ851E	1851	26	Sep	Chan Santa Cruz
HAS850A	1850	7	Apr	T Has
HTZ848B	1848	8	Apr	Tihosuco
NAN851A	1851	9	Sep	Kanan
TKX848A	1848	10	Mar	Tekax

- Crónica de Chac Xulub Chen 1511-1562. Nineteenth-century copy of a Mayan manuscript by Nakuk Pech in Special Collections of the Latin American Library at Tulane University, New Orleans. The examples drawn from this manuscript can be identified by the prefix, "CHX."

- Documentos de Ixil. Biblioteca Yucatanense (formerly Centro de Apoyo a la Investigación Histórica de Yucatán and originally Biblioteca Crescencio Carrillo y Ancona of the Instituto Yucateco de Antropología e Historia in the Palacio Cantón). *See also* Restall (1995:109-112)

Code	Year	Day	Month	Town
IXL766Z	1766	20	Dec	Ixil

- Los Títulos de Ebtún. Original manuscript once in the archives of the town of Ebtún now lost. Photographic copy of the manuscript in the Tozzer Library at Harvard University in Cambridge, Massachusetts.

The Titles of Ebtun contain documents concerning disputes over the ownership of land belonging to Maya originally from towns near Chichen Itza, who were "congregated" in what is today the town of Ebtun near Valladolid, ca 40 kilometers east of their ancestral lands. The documents in this collection can be identified by the prefix "EBT."

Code	Year	Day	Month	Page(s)
EBT600C	1600	6	Sep	54–55
EBT632A	1632	7	Mar	183
EBT675A	1675	9	May	241
EBT711B	1711	—	Nov	81–82
EBT762B	1762	15	Jan	109–110
EBT784A	1784	23	Mar	117–118
EBT785A	1785	18	May	309–310
EBT787A	1787	12	Oct	173–174
EBT788A	1788	26	Jan	175–176
EBT791C	1791	14	May	124
EBT791F	1791	19	Dec	122
EBT792A	1792	24	Jul	121
EBT795A	1795	26	Sep	177
EBT798B	1798	16	Nov	180
EBT809B	1809	30	Jul	225
EBT811E	1811	18	Apr	233–234
EBT811J	1811	13	Dec	227
EBT811K	1811	13	Dec	227–228
EBT812C	1812	28	Feb	238–237
EBT813A	1813	24	Feb	242–243
EBT813B	1813	24	Feb	243–244
EBT813D	1813	6	Mar	245–246
EBT814B	1814	28	Jan	247–248
EBT814C	1814	28	Jun	248–249
EBT817C	1817	19	Dec	253–255
EBT817D	1817	—	Dec	13–15
EBT819A	1819	15	Aug	273
EBT822A	1822	12	Jul	232
EBT822C	1822	12	Jul	303
EBT822D	1822	20	Nov	306
EBT825A	1825	15	Apr	256
EBT833A	1833	24	Nov	102

• Archivo General de Yucatán

Code	Year	Day	Month	Page(s)
EBT840	1840	13	Jun	—

- Crónica de Mani. Original documents in Special Collections of the Latin American Library at Tulane University, New Orleans.

The Crónica de Mani contains the earliest Maya document written in the Latin alphabet, the one bearing a date of August 15, 1557. It is written in the same hand as the one bearing a date of July 10, 1596, suggesting that it is not the original copy of the 1557 document.

Code	Year	Day	Month	Town
MA557	1557	15	Aug	Mani
MA596	1596	10	Jul	Mani

- Pleyto [de Tierras sobre] rancho San Antonio Sabacche entre Don Juan Enrique de Abila vecino de Mani y Apolonio [sic] y Estevan Tzakum; Indios de Ticul [188 folios]. Original documents in Special Collections of the Latin American Library, Tulane University, New Orleans.

On May 30, 1596, four members of the Keb family of the town of San Antonio de Sabacche appeared in the town of Mani with a petition to have the boundaries of their town surveyed. Three versions of that survey are included among the records of Sabacche (SB), all of which are represented in the example clauses and phrases quoted in this grammar.

Code	Year	Day	Month	Folio(s)
SB596A	1596	20	May	41v–43r
SB596B	1596	20	May	43r–45r
SB596C	1596	20	May	126r–128r

- Quaderno en que constan los documentos de tierras de la Hacienda Sn. Juan Bautista Tavi, en Ydioma Maya o Yucateca. Original documents in Special Collections of the Latin American Library at Tulane University, New Orleans.

The hacienda of San Juan Bautista Tabi was cobbled together from land appropriated from several Maya towns in the Puuc region. Along with the land came legal documents from the towns of Dzan (DZ), Mani (MA), Oxkutzcab (OX), Pustunich (PS), and Yotholin (YT). The documents from Dzan cover the longest period of time: 1569–1791. The Tabi archive consists of five volumes of documents in Maya and Spanish. All but two Maya documents are in Volume 1. The remaining Maya documents (from Oxkutzcab and Pustunich) are in Volume 4. Thirty-nine of the 52 Maya documents in the Tabi archive are sources of examples used in this grammar.

Code	Year	Day	Month	Volume	Folio(s)
DZ569	1569	16	Mar	1	32r
DZ587A	1587	—	—	1	33v–33r
DZ587B	1587	10	May	1	34v
DZ593A	1593	18	Oct	1	34r
DZ593B	1593	—	—	1	34v
DZ624	1624	11	Mar	1	35v
DZ651A	1651	10	Feb	1	22r
DZ651B	1651	10	Feb	1	22v
DZ651C	1651	10	Feb	1	22v–23v
DZ651D	1651	10	Feb	1	24v
DZ651E	1651?	—	—	1	25r
DZ700	1700	2	Oct	1	2r
DZ791A	1791	28	Jul	1	26
DZ791B	1791	28	Jul	1	27
MA629	1629	15	Aug	1	19r
MA733A	1733	27	Aug	1	15r
MA733B	1733	20	Sep	1	16r
MA733C	1733	1	Oct	1	16v–17r
MA733D	1733	1	Oct	1	17–18
MA733E	1733	1	Oct	1	18v–19r
MA733F	1733	1	Oct	1	19v–20r
MA733G	1733	1	Oct	1	20
MA733H	1733	1	Oct	1	20v
OX595	1595	16	Mar	1	9r
OX650	1650	26	Mar	1	11r
OX683	1683	11	Mar	1	42r
OX697	1697	6	Sep	1	40r
OX726	1726	29	Nov	1	9v
OX738B	1738	26	Mar	1	13v
OX772	1772	22	Apr	1	43r
OX775	1775	22	Sep	1	44r
OX785	1785	14	Jun	4	372v–373v
PS740A	1740	14	Nov	1	40v
PS740B	1740	17	Nov	1	41r
PS777	1777	30	Jun	1	31r
PS791A	1791	28	Jan	1	135
PS802	1802	14	Nov	4	288
YT718A	1718	20	May	1	6
YT718B	1718	20	May	1	8

- Selected documents pertaining to the town of Tekanto, 1590-1835, in the Archivo Notarial del Estado (Yucatán), Mérida.

Books 1-10 of the Izamal branch of the Archivo Notarial del Estado (Yucatán) in Merida contain what Thompson (1999:1) calls the "Documentos de Tekanto." Most of the 512 Maya documents in this collection are in Book 1. The others are in Books 2 and 4. The ones originating in the town of Tekanto can be identified by the prefix, "TK." The ones originating in nearby towns are marked by the prefix, "KAN." One document comes from the Papeles de la Familia Castro that were once kept in the Tekanto church. It is included in the "TK" classification. Thompson (1999:Appendix 1) contains a complete list of the Maya documents in the "Documentos de Tekanto" and a description of their contents.

Code	Year	Day	Month	Book	Folio(s)
TK590A	1590	8	Oct	1	30v
TK590B	1590	—	Oct	1	30v-30r
TK590C	1590	9	Oct	1	30r
TK610	1610	16	May	1	28r-28v
TK661	1661	21	Mar	1	217r-217v
TK670	1670	17	Jul	Castro	1r
TK674	1674	12	May	4	27v
TK679	1679	21	Aug	4	25r
TK698	1698	16	Dec	1	exp. 1
TK724A	1724	22	Sep	1	127r
TK725A	1725	14	Aug	1	125r
TK725E	1725	6	Dec	1	126r
TK730C	1730	15	Feb	1	138v
TK730J	1730	22	Apr	1	140r
TK732D	1732	19	May	1	145v
TK734B	1734	30	Apr	1	149r-149v
TK738I	1738	—	—	1	159r
TK739A	1739	12	Jan	1	163v
TK743D	1743	4	Aug	1	161v
TK743E	1743	10	Aug	1	162r
TK743F	1743	—	Aug	1	162v
TK743G	1743	22	Aug	1	169r
TK743K	1743	10	Dec	1	170r-171r
TK749D	1749	12	Feb	1	195r
TK749E	1749	13	Feb	1	195r
TK752F	1752	25	Sep	1	209v-210v
TK754N	1754	29	Aug	1	219r-219v
TK757L	1757	7	Dec	1	173v
TK770B	1770	9	Oct	4	92r
TK775B	1775	25	Aug	4	92v
TK779A	1779	5	Apr	4	82r
TK789A	1789	12	Nov	4	119

Code	Year	Day	Month	Book	Folio(s)
TK804D	1804	2	Jul	1	59v
TK807B	1807	13	Jan	1	123
TK808A	1808	22	Jul	1	106r
TK809B	1809	23	Sep	1	100v
TK812A	1812	21	Jul	1	76r
TK812G	1812	20	Nov	1	31r–31v
TK814A	1814	20	Sep	1	60–62
TK815A	1815	9	Aug	1	45
TK816A	1816	21	Sep	1	40
TK816B	1816	3	Mar	1	42
TK816E	1816	24	Oct	1	13r
TK817B	1817	6	Mar	1	9r
TK817C	1817	26	Apr	1	1r
TK817D	1817	9	Jul	1	4r
TK817G	1817	—	—	1	25r
TK819A	1819	4	Aug	—	38
TK819B	1819	13	Aug	1	43
TK819C	1819	17	Aug	1	52
TK819E	1819	8	Feb	—	39
TK819G	1819	29	Jul	1	21r
TK819H	1819	30	Jul	1	20r
TK820A	1820	21	Oct	1	146r
TK820B	1820	17	May	1	18r
TK821A	1821	5	Oct	1	98r
TK833A	1833	10	Dec	4?	26

Code	Year	Day	Month	Book	Folio(s)	Town
KAN726A	1726	2	Apr	1	100r	Dzidzantun
KAN763A	1763	6	Apr	1	74r	Dzidzantun
KAN777A	1777	29	Dec	1	92r–92v	Dzidzantun
KAN781A	1781	19	Jun	1	60r–60v	Dzidzantun
KAN782A	1782	20	Aug	1	28r	—
KAN790B	1790	25	May	1	12r	Izamal
KAN792B	1792	16	Dec	1	29r	Izamal
KAN794A	1794	18	May	—	366r–366v	—
KAN798A	1798	6	Mar	1	43r	Izamal
KAN798B	1798	12	Mar	1	42r	Izamal
KAN799A	1799	11	Aug	—	—	Izamal
KAN804A	1804	2	Jul	1	59v	Izamal
KAN805A	1805	18	Sep	—	41r	Cacalchen
KAN805B	1805	30	Jul	—	—	Tixkochoh
KAN812E	1812	14	Jan	1	56	Xocchel
KAN813C	1813	15	Feb	1	114r	Nolo
KAN825B	1825	25	Mar	1	11r	Yobain?

- Correspondence between S[y]lvanus]. G. Morley and Various Maya Indian Chiefs from Xcacal in the Territory of Quintana Roo, Mexico, and Various Associated Villages, from November 1934 to June 2 1936. The letters are archived in the Tozzer Library at Harvard University in Cambridge, Massachusetts.

Code	Year	Day	Month	Town
TIX935B	1935	25	Nov	Tixcacal Guardia
TIX935G	1935	20	Sep	Tixcacal Guardia
TIX935J	1935	20	Sep	Tixcacal Guardia
TIX935K	1935	20	Sep	Tixcacal Guardia
TIX935L	1935	20	Sep	Tixcacal Guardia
TIX936A	1936	5	Jun	Tixcacal Guardia
TIX936B	1936	2	Jun	Tixcacal Guardia

- Xiu Family Papers. Original documents in Tozzer Library at Harvard University in Cambridge, Massachusetts. Facsimile copy in Latin American Library at Tulane University, New Orleans.

The Xiu Family Papers (1608-1817) contain correspondence between members of the Maya nobility living in Yaxa (formerly Yaxakumche) near Oxkutzcab and the Spanish authorities in Merida. The examples drawn from those documents can be identified by the "XIU" prefix. Of special historical interest is the document coded as XIU685, which is known as the "Chronicle of Oxkutzcab" and contains information that facilitates the correlation of the Precolumbian Maya calendar with the Western Gregorian calendar (H. and V. Bricker 2011:79-81, Table 4-1). It is also an essential source for understanding the traditional system of verbal inflection as explained in Chapter 5.

Code	Year	Day	Month	Page(s)
XIU685	1685	29	May	66
XIU688B	1688	14	Nov	84
XIU727A	1727	4	Oct	113
XIU759B	1759	27	Mar	125
XIU764A	1764	13	May	131
XIU766B	1766	23	Jul	136-137
XIU793B	1798	9	Jan	157-158

- Archive of the Indigenous Languages of Latin America (AILLA). Nettie Lee Benson Latin American Collection at the University of Texas, Austin.

Digital copies of my recordings of Modern Yucatec can be found on the AILLA website at the University of Texas in Austin (www.ailla.utexas.org), along with my transcriptions and translations of the texts.

Code	Year	AILLA Classification	Town
CAR971	1971	YUA003R007	Carrillo Puerto ¹
CHC971A	1971	YUA003R008	Chan Cah ²
CHC971B	1971	YUA003R009	Chan Cah
CHK979	1979	YUA003R015	Chan Kom
EBT979A	1979	YUA003R018	Ebtun
EBT979B	1979	YUA003R019	Ebtun
EBT979C	1979	YUA003R017	Ebtun
HOC971A	1971	YUA003R001	Hocaba ³
HOC971B	1971	YUA003R010	Hocaba
PEN971	1971	YUA003R057	Pencuyut
SOT971A	1971	YUA003R003	Sotuta
SOT971B	1971	YUA003R004	Sotuta
SOT971C	1971	YUA003R005	Sotuta

- ASA-Y, Arreglos Parroquiales 1796–1833

Code	Year	Day	Month	Town
KNX784A	1784	—	—	Kanxoc
PCH779A	1779	8	Dec	Tepich
PCH779B	1779?	—	—	Tepich
SCL803	1803	4	Aug	Saclum
XOC782	1782	28	May	Xocen

- Archivo General del Estado (Yucatán) Gobierno, 1847

Code	Year	Day	Month	Town
HTZ847A	1847	—	—	Tihosuco

- Archivo General de la Nación, Tierras, Volume 1359, Exp. 5

Code	Year	Day	Month	Folio	Town
HOM804B	1804	5	Jul	16	Homun

- Archivo General de las Indias, Inquisición, Vol. 69, Exped. 5, folios 154-329

Code	Year	Day	Month	Folio(s)	Town
TXM578	1578	—	—	277	Tixmeuac

- Archivo General de las Indias, Mexico 367, folio 64165
Province of Ah Kin Chel (KC). Facsimile copy on plate (tafel) 30 of Zimmerman (1970)

Code	Year	Day	Month	Folio(s)	Province
KC567	1567	12	Feb	64165	Ah Kin Chel

- Archivo General de la Nación, México

Code	Year	Day	Month	Folio(s)	Town
TTZ589	1589	9	Mar	275r	Titzal

- Archivo General de las Indias, Audiencia de México, 359

Code	Year	Day	Month	Folio(s)	Town
MID567	1567	9	Mar	365–368	Merida

- Archivo Histórico del Arzobispado de Yucatán
Libro de cofradía de Hocabá (1769–1784)
- Dirección de Tierras del Departamento de Yucatán
Documentos de Tahmek (1744–1789)
- Undetermined Archive

Code	Year	Day	Month	Town
CHL713A	1713	29	Oct	Chulul

NOTES

1. Digital recording of V. Bricker (1981:224–253).
2. Digital recording of V. Bricker (1981:219–224).
3. Digital recording of V. Bricker (1979c).

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